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EMPOWERING HIDDEN VOICES: A PHOTO NARRATION OF COMMUNITY FOOD NEEDS BY TWO CROSS-TOWN MIDDLE SCHOOLS IN KENTUCKY

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EMPOWERING HIDDEN VOICES:
A PHOTO NARRATION OF COMMUNITY FOOD NEEDS BY TWO CROSS-TOWN
MIDDLE SCHOOLS IN KENTUCKY

THESIS

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science
in Community and Leadership Development in the College of Agriculture, Food and
Environment at the University of Kentucky

By

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Lexington, Kentucky

Director: Dr. Stacy K. Vincent, Associate Professor

Lexington, Kentucky

2018

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ABSTRACT OF THESIS

EMPOWERING HIDDEN VOICES:

A PHOTO NARRATION OF COMMUNITY FOOD NEEDS BY TWO CROSS-TOWN MIDDLE SCHOOLS IN KENTUCKY

Children are among those most directly affected by food insecurity, a condition in which households lack access to adequate food because of money or other resources (Gundersen & Ziliak, 2015). According to the latest United States Department of Agriculture (2016) reporting, 1 in 5 children experiences hunger on a daily basis. That ratio increases for African American and Latino children whom experience 1 in 3 ratios. While many programs exist to address this growing problem among youth and impoverished families, the efficacy of those programs is yet to be determined and the problem of hunger in America persists. This qualitative research study utilized an innovative methodological approach to explore youth food justice narratives from two cross-town middle schools in Kentucky. Through the use of photos, students identified several factors that influence their ability to meet their food needs and areas of inequity within their community. Strategies were provided for policymakers and educators to address these issues.

KEYWORDS: Youth, Photovoice, Participatory Action Research, Food Needs, Food Justice, Food Inequity, Food Insecurity

Tori Summey

4/16/2018

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DEDICATION

This thesis is dedicated to the many individuals whose love and support has helped foster my love for creativity and education. Thank you for stressing the importance of growth, for picking me up and dusting me off when I failed, and for helping me to push past every adversity. I would be nothing without my safety net: my parents Dutch and Sandy Summey, my sister Keili Summey, my Aunt Nanci Waffle, and my grandparents, Dave and Kay Otterson.

I would also like to dedicate this thesis to the young dreamers who grew up to ever doubt their impact, and to the faith that kept them going. May we all continue to use our voices and any amount of power we are given to free others and allow their voices to be heard.

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I believe Toni Morrison said it best when she exclaimed, “The function of freedom is to free someone else.” Thank you to all of the individuals I’ve encountered who collectively worked to empower me so that I may empower others. It is my hope that through research, we may all seek to provide individuals in our communities with power and a platform to share their voice. And through that voice, that they may find freedom.

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CHAPTER 1

INTRODUCTION

Background and Setting

Food insecurity is a growing problem as one in six Americans, and even more families with children: 20.6% vs. 12.2%, face hunger (USDA, 2016). Food insecurity can be defined as a condition in which households lack access to adequate food because of limited money or other resources (Gundersen & Ziliak, 2015). Children are among those most directly affected by food insecurity. According to the latest United States Department of Agriculture (2016) reporting, 1 in 5 children experiences hunger on a daily basis. That ratio increases for African American and Latino children whom experience 1 in 3 ratios. The USDA measures food insecurity through responses to a series of questions and statements fielding to roughly 45,000 households in the Food Security Supplement of the Census Bureau's Current Population Survey (CPS-FSS).¹ The first item addresses worries about food running out, while the remaining items address possible reductions in food intakes because of financial constraints. Eight constructs focus specifically on children and include such themes as access, availability, and affordability of food. At the most severe level, households reported children not receiving food for a whole day due to a lack of financial resources.

The factors influencing food security are numerous, but can be categorized within the context of four themes- inequity, access, behaviors, and nutrition. While some issues may fall under just one category, most research conducted on food insecurity suggest a connection between multiple categories at a time, culminating into a growing hunger epidemic that is difficult to reverse. A plethora of initiatives exist today aimed at

resolving these expanding problems, many of which target youth. According to the USDA, over 20 million children qualify for free and/or reduced-price meals each day at school (2016). Unfortunately, less than half of them get breakfast and only 10% have access to summer meal sites. In the U.S., 1 in 7 individuals are enrolled in Supplemental Nutrition Assistance Programs (SNAP) and nearly half are children. With no long-term solution in sight, improvement within the current system and relief efforts are needed. Namely, the inclusion of those voices and perspectives most directly affected.

Need for the Study

Food is a fundamental need for all human development. While many programs exist to address the growing problem of food insufficiency within youth and impoverished families, the efficacy of those programs may still require some exploring as the problem of hunger in America persists. Furthermore, much of the reviewed research on federal food assistance programs identifies deficiencies in the programs currently in place within schools and communities to address the problem of food insufficiency (Duffy, Zizza, 2016; Huang, Barnidge, 2016; Lewis, et al, 2011; Martin, et al, 2013; Nicholls, et al, 2011). Research gathered in this area will not only benefit those directly impacted by government funded programs and initiatives aimed to end food insufficiency, but also any researchers and community organizers who seek to understand more deeply the food environments of youth and the connections of those environments to the growing problem of food insecurity among them.

Food Insecurity in Kentucky.

The commonwealth of Kentucky is particularly at-risk for food insufficiency and hunger. The Kentucky Association of Food Banks revealed that 743,310 individuals,

including 222,380 children, are food insecure (2016). From that, it can be determined that 17% of the entire population in Kentucky experiences a lack of access, at times, to enough food for an active, healthy life for all household members (Kentucky Department of Agriculture, 2016). Fayette county is just one of the many areas of concern within Kentucky, and contains the second largest city within the commonwealth- Lexington. According to Feeding America's Map the Meal Gap, the food insecurity rate in Fayette county is 16.6% overall, and 17.5% among children (2017). The American Health Foundation further reveals the food insecurity rate in Kentucky is nearly 4% higher than the national rate and has slowly increased from 2015 (16.4%) to 2017 (17.6%). This shows that while food initiatives continue to exist in Kentucky, hunger has yet to be diminished. More research is needed to establish a better practice of resolving food insecurity.

Purpose of the Study

The purpose of this study is to identify local food environments and approaches to address food needs as depicted by food insecure youth. Many food insecure youth face day-to-day realities of hunger, and the effects of a long history of systematic oppression that has left their voices stifled (Alcon & Agyeman, 2011; Mayer, 2015). This research seeks to illuminate the self-perceived needs of these young community members and provide them a platform to share their voices and personal narratives regarding food.

Research Questions

The research questions for this qualitative, focus group study are the following:

RQ1: What do selected youth identify as effective approaches to assisting their food needs?

RQ2: Do youth identify areas where food injustice exists?

Definition of Terms

Food Justice - Communities exercising their right to grow, sell, and eat fresh, nutritious, affordable, and culturally appropriate food (What is Food Justice?, 2018).

Food Insecurity - A condition in which households lack access to adequate food because of limited money or other resources (Gundersen & Ziliak, 2015)

Food Desert - Parts of the country devoid of fresh fruit, vegetables, and other healthful whole foods, usually found in impoverished areas (USDA, 2016)

Food Sovereignty - The concept that every human being is born with an innate right to food and sustenance (Carney, 2012)

Food Environment - The combined characteristics of a community (such as store/restaurant proximity, food prices, and food and nutrition assistance programs) that interact to influence food choices and diet quality (USDA, 2016)

Supplemental Nutrition Assistance Program (SNAP) - The largest nutrition assistance program administered by the USDA, serving more than 46 million low-income Americans per year, at a cost of more than \$75 billion. The goals of SNAP are to improve participants' food security and their access to a healthy diet

Child and Adult Care Food Program - A program within the USDA seeking to improve the quality of day care and making it more affordable for many low-income families. Each day, 2.6 million children receive nutritious meals and snacks through CACFP. The program also provides meals and snacks to 74,000 adults who receive care in nonresidential adult day care centers. CACFP reaches even further to provide meals to children residing in homeless shelters, and snacks and suppers to youths participating in eligible afterschool care programs

Fresh Fruit and Vegetable Program (FFVP) - The Fresh Fruit and Vegetable Program provides free fresh fruits and vegetables in selected low-income elementary schools nationwide. The purpose of the Program is to increase children's fresh fruit and vegetable consumption and at the same time combat childhood obesity by improving children's overall diet and create healthier eating habits to impact their present and future health

National School Lunch Program (NSLP) - School districts and independent schools that choose to take part in the lunch program get cash subsidies and donated commodities from the USDA for each meal they serve. In return, they must serve lunches that meet Federal requirements, and they must offer free or reduced price lunches to eligible children. School food authorities can also be reimbursed for snacks served to children through age 18 in afterschool educational or enrichment programs

School Breakfast Program (SBP) - The School Breakfast Program operates in the same manner as the National School Lunch Program. School districts and independent schools

that choose to take part in the breakfast program receive cash subsidies from the USDA for each meal they serve. In return, they must serve breakfasts that meet Federal requirements, and they must offer free or reduced price breakfasts to eligible children

Special Milk Program (SMP) - Participating schools and institutions receive reimbursement from the USDA for each half pint of milk served. They must operate their milk programs on a non-profit basis. They agree to use the Federal reimbursement to reduce the selling price of milk to all children

Summer Food Service Program (SFSP) - The single largest Federal resource available for local sponsors who want to combine a feeding program with a summer activity program. Children in your community do not need to go hungry this summer. During the school year, nutritious meals are available through the National School Lunch and School Breakfast Programs. But those programs end when school ends for the summer. The Summer Food Service Program helps fill the hunger gap

Women, Infants, and Children (WIC) - serves to safeguard the health of low-income women, infants, & children up to age 5 who are at nutritional risk by providing nutritious foods to supplement diets, information on healthy eating, and referrals to health care

Limitations

The importance of this study rests on the deficiencies in research to address and identify youth perspectives on growing concerns of food insufficiency and methods of resolving it. As such, it would be beneficial to go beyond the scope of one county in

Kentucky and conduct a wider body of research within differing communities of youth across Kentucky and nationwide.

CHAPTER 2

REVIEW OF THE LITERATURE

Theoretical Framework

The foundations of this thesis are guided by John Rawls' theory of Social Justice (1971). Rawls established the theory of Social Justice with the concept that freedom and equality are not mutually exclusive. His assessment of the justice system led him to conclude that for justice to be truly just, everyone must be afforded the same rights under the law. The principles of this theory refer to the values "that favor measures that aim at decreasing or eliminating inequity; promoting inclusiveness of diversity; and establishing environments that are supportive of all people." [1] The social justice principles include: equity, diversity and supportive environments. This theory includes the adaptation of two fundamental principles of justice with the aim to "guarantee a just and morally acceptable society" (1971). The first principle guarantees the right of each person to have the most extensive basic liberty compatible with the liberty of others. The second principle states that social and economic positions are to be a) to everyone's advantage and b) open to all. This theory serves as a pragmatic approach to research, providing a practical means of conceptualizing issues of social injustice. This study also touched on constructivist grounded theory, which allows theory to evolve through research rather than being prescribed (Glaser and Strauss, 1967). This allows flexibility in data collection and analysis and fosters creativity to generate new knowledge.

Inequity

According to the concept of food sovereignty, every human being is born with an innate right to food and sustenance (Carney, 2012). However, this right is not always met.

While many factors can be attributed as having caused food disparity among the U.S. population, it seems there is a systematic class divide that influences the lack of food sovereignty. Perhaps the most significant characteristic of this social divide is poverty and socioeconomic status (SEC). Poverty can then be connected to a variety of issues and health concerns that further perpetuate the problem. Institutional racism has been listed as an example of one of these influences, and leads to even more problems in relation to the other categories (Alcon & Agyeman, 2011; Mayer, 2015). USDA GPRA Food security Indicator determined that food security depends on a variety of demographic, economic, geographic, and household structure factors (Nord, 2007). Other demographics and identifiers such as gender, marital status, stressors and food stamp participants are also associated to food insecurity, and obesity- especially among women. (Franklin, et al, 2012). If we are to change the outlook of food sovereignty for all, we must begin to change the language and social dysfunction surrounding hunger (Carney, 2012).

Access

The inequity that results from a systematic division of social classes and demographics feeds into the issue of access among the poor. A persons' race/ethnicity and poverty index ration (PIR) are shown to have a significant influence on their availability to food, meal patterns, and food expenditures in youth homes (Masters, Krogstrand, Eskridge & Albrecht 2014). The racial "symbolic boundaries" and socioeconomic barriers that emerge as a result of food mirages, or tracts where food access limitations stem from a lack of affordable, healthful options rather an absence of grocery stores (Breyer & Voss-Andreae, 2013). These mirages severely limit food access to poor and minority communities (Sullivan, 2014).

Naturally, this lack of access to food is a major contributor to food and nutrition insufficiency. While the issue of food deserts is prevalent within the rural community, it has unfortunately become an issue within urban communities as well, and serves as a key target for food security initiatives. Incorporating temporal dimension in accessibility has become a new way to tackle the problem. Some researchers and community leaders are now focusing on answering the question of when food deserts exist, as opposed to where (Widener & Shannon, 2014). Marketing has also had a noticeable effect on food deserts within traditional economies, and can be utilized as a means to promote healthier eating habits, even with a lack in access (Cerovecki & Gru Hhagen, 2015). Moreover, as important as it is to address the issue of food deserts and availability, improved access may not be as important as lowering prices on healthy foods and marketing to change behavior (Ghosh-Dastidar, et al, 2014).

Behaviors

While a low socioeconomic status, strained family situation, and lack of access to fresh nutritious food are certainly all major contributors to the growing problem of food insecurity, each characteristic is so interrelated that progress is limited by a simple lack in good eating and grocery shopping habits; therefore, it's crucial to understand where food habits originate, and how they can be influenced for the better. A study on eating behaviors was released that showed that perceived safety, cultural similarities, and finances positively influence the urban food environment and buying decisions of consumers within it (Cannuscia, 2014).

Further studies suggest that citizens should utilize shopping lists when buying groceries, as they aid in reducing Body Mass Index (BMI) and increase health in low-

income individuals (Dubowitz, et al, 2015). This is due to the added effort and thought that goes into making a list, creating a conscious barrier that consumers will need to breach in order to fall back into unhealthy buying habits at the store. However, this alone is not enough. More intervention efforts need to emerge, and specifically those targeting black student of low SES, as they are one of the groups most at risk (Fahlam, McCaughtry, Martin & Shen 2010).

Nutrition

Nutrition is a major aspect of food insecurity. Some families, while they have enough food to satisfy their hunger are not considered food secure because they don't have adequate access or means to consume adequate nutrition (USDA, 2015). Health literacy is always important, but it has become a major concern with low-income individuals (Speirs, Messina, Munger & Grutzmacher, 2012). Even in food deserts where new grocery stores have been introduced, there remains a problem of health literacy and a need to implement multi-level health intervention to combat chronic disease (Chrisinger, 2016).

It should come as no surprise that within food deserts, and naturally within low-income households, there is a substantial nutrition related health concern. Diabetes and Heart Disease are among the major concerns for those citizens not provided with adequate food and nutrition in the U.S. (Budzyzka, et al, 2013; Lang & Heasman, 2016; Lee, Song, Kim, Choe & Paik, 2015). Other health concerns include a greater likelihood of asthma in children and greater health deterioration in seniors (Gundersen & Zillak, 2015). Food insecurity is even linked with prevalent HIV, STIs, and illicit drug use among men in the United States (Palar, Laraia, Tsai, Johnson & Weiser, 2016), and

severe food insecurity was longitudinally associated with a binary variable indicating probable depression. Efforts to increase access to and participation in food security safety net programs for PLHIV could improve depression.

In addition, the Supplemental Nutrition Assistance Program has been found to help lower risk, as well as education (Gundersen & Zillak, 2015). Nevertheless, health literacy and intervention is not a “one size fits all” solution. Race and region should be collectively considered in making diet and disease association and planning advice for subgroups (Newby, et al., 2012).

Federally Funded Initiatives

The federally funded programs and initiatives that have been implemented within the U.S. prove that the struggle to obtain food sufficiency has been an ongoing problem. In an effort to aid in the endeavor to end hunger, the USDA has launched five programs targeting toward ending food insecurity in children, with several other programs in place to assist with food insecurity as a whole. For instance, the National Institute of Food and Agriculture (NIFA), a branch within the USDA, tackles hunger and food security through research, education, and extension work within Land-Grant University Systems, nutrition education programs, grant programs, and private nonprofits. These programs include Community Food Projects Competitive Grant Program, Food Insecurity Nutrition Incentive Grand Program, The Expanded Food and Nutrition Education Program, and Agriculture and Food Research Initiative Food Security Challenge.

The USDAs Child Nutrition Programs include the Child and Adult Care Food Program, the Fresh Fruit and Vegetable Program, the National School Lunch Program, School Breakfast Program, Special Milk Program, and Summer Food Service Program

(Programs and Services, 2018). However, there is still much room for growth, within the programs themselves and awareness of the need to address the structural issues at the root of food insecurity, as the issue of food security persists. Multiple studies have identified a need for easier enrollment within these programs, specifically looking at the National School Lunch Program (Huang, Barnidge & Kim, 2015; Huang & Barnidge, 2016).

Community Driven Initiatives

With many community members realizing the disparities within the U.S. food system and deficiencies within government-funded initiatives, community driven efforts have taken shape to address food sufficiency injustice. The FreshStop Food Pantry is one example of a community-based program that has been able to measurably lower the risk of food insecurity among their members. FreshStop are FreshStop successes may be due to the fact they focus on long-term food security solutions, instead of short-term assistance as many programs often do (Martin, et al, 2013).

Community Health Councils (CHC) has also followed suit. CHC is a nonprofit community-based organization in South Los Angeles that partnered with African Americans Building a Legacy of Health Coalition to develop a community change model that addresses the causes of health disparities within the local African American community. The CHC Model is unique because it provides a systematic approach and seeks to engage impacted communities through supporting societal level reform (Lewis, et al, 2011).

Private Initiatives

A subsector of the community driven effort to end hunger, privately funded initiatives have become more popular in trying to end hunger across the world. One program, called Let's Move Salad Bars to Schools (LMSBS), has become somewhat of a success. The function of LMSBS is to bring fresh fruits and vegetables to youth. There are many programs that seek to do a similar service. However, arguably more beneficial is the model LMSBS has launched for their coalition building effort to address health (Harris, et al, 2012). LMSBS recognizes the entangled role each aspect of food insecurity has within one another, and they've used this to further benefit their initiative. By working to create lasting life changes instead of simply giving out resources, their program has seen some significant progress. Other programs within this sector could also utilize this same method to slowly chip away at the overall systematic issue hunger stems from.

Local Food Systems

In opposition to the global food system, alternative food movements have proposed a "re-localization" of food production and consumption (Wilhelmina, Joost, George, & Guido, 2016). Local alternatives include farmers' markets, community supported agriculture (CSA), food co-ops and other cooperative distribution and delivery programs. They combine one form or another of direct markets in which consumer and producer engage in face-to-face buying and selling, omitting the middleman. Direct marketing is seen as facilitating greater control over the food system by both farmer and consumer because farmers are involved in each stage of the production process and remain accountable to consumers who increasingly demand to know exactly how and where their food was grown. While direct marketing systems are credited with creating

local jobs, reducing environmental degradation, protecting farmland from urbanization, fostering community relations and strengthening connections between farmers and consumers, we have to ask how accessible these alternative food systems are to the poor (Smirl, 2011).

Opportunity for Research

While there is a clear and present need for hunger initiatives, it would seem there is still much to be discovered regarding the relationship of food security programs and the intended communities they serve. Several studies outline the weaknesses within current programs and needs for further research (Duffy & Zizza, 2016; Huang & Barnidge, 2016; Lewis, et al, 2011). Among them, Duffy and Zizza identify the need for additional research in order to more accurately recognize underreporting, better examine effects of dietary behaviors, assess social safety net programs in conjunction with one another, and focus on income and wealth. While there remains an extensive list of things to be fixed within the initiatives themselves, it seems the problem is systematic and requires a new approach. As such, research efforts would be best utilized identifying any existing disconnects between communities and initiatives that will help provide new perspective on what most challenges initiative success.

CHAPTER 3

METHODOLOGY

This study was qualitative in design and utilized an innovative methodological approach with youth in two cross-town middle schools. Approval was obtained from the Office of Research Integrity at the University of Kentucky with the approval number 17-0576-P4S. Student participation was voluntary, and no reward was given to those involved. An integrative epistemological foundation was set through the researcher's worldview. According to Creswell (2014), this worldview emphasizes the interconnectedness of the spiritual and the physical to create a divine reality in which all separate elements of the human experience are united. Furthermore, the integrative worldview bridges elements and domains typically regarded as mutually exclusive. Opposing perspectives are seen on a deeper level to be part of a greater whole.

Purpose and Research Questions

The purpose of this study is to identify local food environments and effective approaches to meet food needs as expressed by food insecure youth. Many food insecure youth face day-to-day realities of hunger, and the effects of a long history of systematic oppression that has left their voices stifled (Mayer, 2015; Alcon & Agyeman, 2011).

The research questions for this qualitative, focus group study are the following:

RQ1: What do selected youth identify as effective approaches to assisting their food needs?

RQ2: Do youth identify areas where food injustice exists?

Methods

The study was guided by the Community Based Participatory Research (CBPR) approach (Israel et al., 2012; Israel et al., 1998). The W. K. Kellogg Foundation Community Health Scholars Program defines CBPR as a research approach that is collaborative in nature and involves all participants in the research process while recognizing the individuality each person brings to the table. CBPR research seeks to combine wisdom and action to achieve social change by addressing topics of interest within the community (2017).

The aim of this methodology is to engage youth participants in a dialogue about the implications of food justice and nutrition on themselves and their local community food systems. More specifically, the methodology of photovoice (Wang & Burris, 1997) was utilized to allow students the opportunity to explore and share their own food narratives while identifying, representing, and enhancing their community through a specific photographic technique. As a practice based in the production of knowledge, photovoice has three main goals: (1) to enable people to record and reflect on their community's strengths and concerns, (2) to promote critical dialogue and knowledge about important issues through large and small group discussion of photographs, and (3) to reach policymakers (Wang & Burris, 2016).

A constructivist approach to photovoice was utilized in this study to present issues within the food environment, such as the earlier mentioned themes of inequity, access, nutrition, and behaviors. By constructivist, this means the research team will work in collaboration with youth participants to co-create an understanding of the problems posed by the research questions (Sahay, Thatcher, Nunez, & Lightfoot, 2016; Lincoln, Lynham, & Guba, 2011). In this approach, research questions are not predetermined, but rather

pulled from group discussions and group consensus. In this way, photovoice is an empowering methodology (Wallerstein, 1994) strongly informed by Paulo Friere's concepts of problem-posing and co-learning (Freire, 2005). By approaching matters in this way, the researcher seeks to elicit the knowledge and expertise of individuals in an effort to transform historical and social realities. Moreover, in photovoice, photographs are taken by participating individuals and used to elicit individual perspectives. Following a group process, participants engage in discussion and generate new knowledge and solutions through their interactions (Sahay, Thatcher, Nunez, & Lightfoot, 2016; Wallerstein, 1994).

Introduction to Photovoice

Photovoice is a form of participatory action research, which is often community-based and “contrasts sharply with the conventional model of pure research, in which [participants]...are treated as passive subjects” (Whyte, Greenwood, & Lazes, 1991, p. 20). Through this methodology, participant choice is always included, as the aim of participatory action research is to create an environment where participants have a voice and freedom. In this way, participants provide and receive valid information, make free and informed decisions, may choose to participate or not, and can evoke an internal commitment to see the result of their inquiry (p. 86). While the inception of photovoice as a research methodology is relatively new, photovoice has historically been used to highlight the experiences and perspectives of those who have been marginalized, those with voices not ordinarily heard by those in positions of power.

Photovoice can also be seen as the overlapping of three research methodologies: feminism, Friirian education for critical consciousness; and participatory documentary

photography (Wang & Burris, 1997). Photovoice molds together Frierian and feminist approaches to create a platform for marginalized individuals to be authors of and authorities on their own lived experiences. Wang & Burris (1994) explain grounded theory as an ideology of accountability. Following this and the feminist scholar doctrine, any knowledge or practice exploiting individuals is unjustifiable. Furthermore, similar to modern photovoice, documentary photography has been used to raise awareness about individuals and societies through photography (Ewald, Hyde, & Lorde, 2012). Spence (1995) explained how through personal images counteracting stereotypes individuals discover how to relate to themselves and to others more positively.

Origins of Photovoice

Photo Novella was the original term, coined by Caroline C. Wang and Mary Ann Burris (1994), to detail photo-based inquiry and research in the early 1990s. Photo Novella, known today as photovoice, was part of a four-part needs assessment related to women's health in rural China, which later became an engagement project centered on empowerment. Women participants in this project were asked to detail intangible things such as worry and love through photography. It was soon found that the subsequent photos alone could not create a replete understanding of each individual's perspective. Instead, it was found that personal narratives used to explain the photographs were necessary to its understanding (Wang & Burris, 1994). This need for both photography and storytelling is where photovoice derives its name.

Implementation of Photovoice

While the photovoice process can be adapted to fit the needs of participants in each intended project, Latz (2017) has synthesized the process into 8 steps which can serve as a guide: identification, invitation, education, documentation, narration, ideation, presentation, confirmation. These steps derive from the author's extensive experience with photovoice in education and the original step-by-step process outlined by Wang (2006).

Wang (2006) drew upon ten studies involving photography in research to create the original outline as listed:

1. Select and recruit a target audience of policy makers and community leaders.
2. Recruit a group of Photovoice participants.
3. Introduce the photovoice methodology to participants, and facilitate a group discussion around cameras, power, and ethics.
4. Obtain informed consent.
5. Pose initial themes for taking pictures.
6. Distribute cameras to participants and review how to use the camera.
7. Provide time for participants to take pictures
8. Meet to discuss photographs and identify themes.
9. Plan with participants a format to share photographs and stories with policy makers and community leaders.

These steps have since been simplified by Latz (2017) and made accessible to a wider variety of projects indicative of the complexities within participating communities and sample populations. As noted by the original curators of photovoice, Wang and Burrell (1997), photovoice is a malleable art and research method. It can adapt to meet specific

goals, diverse communities, and various contexts. Furthermore, within this approach, steps may be taken out of order and can be repeated if necessary. As such, the simplified steps outlined by Latz (2017) serve as a guiding force for this research and were modified to meet the needs of the study.

Step One: Identification

As documented in Latz's (2017) outline, identifying both study participants and the individuals who will serve as the study's advisory committee are integral to beginning the photovoice process. It is also important to decide upon an appropriate topic of inquiry and identify potential policy makers who can be reached by this study (p. 66). Wang (2006) and Wang, Cash, and Powers (2000) further explain the importance of involving those individuals who hold positions of power to change the circumstances of the study participants and/or research topic. Not only does this inclusion at the onset of the project provide greater potential for change to take place, but it also enables student voices to be heard by those whose policies are often removed from actual experience. Through the integration of a citizen approach to documentary photography, Photovoice research can serve as a change agent to bridge the gap between broadly conceived policies and the lived experiences of those affected by them, creating social action (Wang 1999, p. 187). Within this study, it was an integral component of the initial steps to outline individuals most able to influence the lives of the student participants. School Staff were identified as potential individuals of interest as well as the Fayette County Public Schools as a whole. The researcher reached out to the principal of each school, as well as school board members to discuss the project and a potential for partnership. Once their involvement was solidified, the invitation and recruitment of students began.

Step Two: Invitation

Once a clear topic and population of inquiry were established, the researcher began recruiting prospective participants to join the study. Latz (2017) wrote that in-person recruitment for photovoice studies is preferred whenever possible. This recruitment can be accomplished by asking potential parents and students to attend a central meeting place and discuss their opportunity for involvement within the study. Due to the negative connotations sometimes associated with research, it is necessary during this step transparent, especially when dealing with groups that have traditionally been marginalized. According to Smith (2012), “[t]he word itself, ‘research,’ is probably one of the dirtiest words in the indigenous world’s vocabulary,” due to past negative implications and the exploitation of indigenous people through research (p.1; Edwards, 1992). As such, it was paramount in approaching this step to pay special regard to underserved and minority populations involved in the study. The researcher made strides to approach with humility, seeking to demystify the research process for participants. At the initial meeting, the researcher explained in detail every step of the process, with scheduled dates, and what would be expected of participants should they agree to be involved in the study. This way, parents had the opportunity to be present during each step of the process, although it was not required.

Step Three: Education

Talking with participants about the intricacies of the photovoice process is paramount. According to Latz (2017); Wang and Burris (1997), participants should understand how the project will unfold, why the project is being done, and what is expected from them. Introducing the project and expectations to participants begins in an

initial meeting with the participant group. Communication with the researcher should provide participants with frequent opportunities to ask questions and request clarification. Encouragement, affirmation, reminders, and updates should be given to the participants on a regular basis. Through this study, the researcher was made easily accessible to participants and provided necessary verbal affirmation throughout each visit and lesson. Furthermore, reminders were provided to the participating students and their parents, outlining every step in the research process, and providing the opportunity to voice opinions and concerns prior to and during the photo collection process.

The research procedures within this study closely follow the outlined steps as participants in the study were introduced to photovoice and the research topic at the initial meeting. Researcher contact information was provided to youth participants and parents, and ample opportunities were given to receive answers to any residing questions. According to Latz's (2017) outline, it is critical to obtain informed consent and photography release in the initial meeting with participants. In her outline, there are at least four kinds of consent and release forms used within photovoice projects: (a) participant's consent to be a part of the study; (b) individual's consent to be photographed; (c) photographer's (individual's) consent to allow the photographs to be published; and (d) participant/ photographer's consent to allow images to be published. If participants or individuals being photographed are minors, consent from a parent/guardian is also necessary.

Due to their categorization as minors, participating students received consent forms (Appendix B) to be signed by their legal guardians and returned the following week to the researcher. Once returned, students were given assent forms (see Appendices

A), to sign that outlined the project and research in which they were participating. Edwards (1992) explained how research can be perceived to be a form of exploitation that creates distrust danger and manipulation. The requirement of legal guardian consent allowed opportunity to create awareness for participants and their legal guardians and a safe environment where both participants and their legal guardians don't feel exploited for research purposes. Along with the assent forms, student participants were given forms that outlined the project, important dates, photography ethics, the project prompt, and a means of contacting the researcher if any questions were to arise. Latz (2017) explained the importance that the researcher's role is not to encroach upon the participants project but allow the opportunity for participants to ask questions when needed. As such, knowledge and handouts were provided within the introductory lesson to equip students with the necessary tools to carry out the project, as well as avenues to contact the researcher. Also, during the second visit with students (following the collection of assent and consent forms), an introduction to ethics training and photovoice was provided.

A one-day training was decided to be the best for efficiently preparing students based on Wang and Burris' (1997) suggestion of minimizing the amount of time spent on specifically technical and aesthetic training. Minimizing the information gained by the students to the core concepts allows students to understand basic photographic techniques to feel confident in the project. However, it does not limit their creative output. Students were introduced to the topic of photovoice through a class discussion led by their peers. Within this encounter, the concept was broken down conceptually and defined by the students. After achieving a basic conceptual definition of photovoice, photovoice ethics were explained to the participants through examples and specific guidelines that would

ensure their photos met the criteria for ethic code. Students were challenged by the researcher with questions involving photographic ethics such as, *How is it acceptable to photograph a person?* and *Would you photograph a person to without telling them?*. To achieve efficient photovoice projects from the classes, basic photography skills were essential. Students were able to kinesthetically learn the core concepts of photography through a photography lesson, activity and self-evaluation. Photos relevant to the students were initially presented, where they had an opportunity to evaluate them to achieve photography literacy. The participants then proceeded taking their own photos based on their experiences and evaluated each other's photos through questioning. Ewald and Lightfoot (2001) emphasized the importance of the ability to read a photograph and how it is often catalyzed through inquiry-based learning that challenges students to learn through a series of questions. The students were evaluated through a series of questions and peer conversation before their knowledge of photovoice, photo ethics and photography literacy were deemed ready for the project at hand.

Step Four: Documentation

At this point in the research procedure, students gained the foundational information to participate in a photovoice activity and were provided with a prompt. Creating effective photography prompts is integral to setting up participants for success in navigating the documentation phase. According to Latz (2017), prompts should address the topic of inquiry while remaining attentive to the individuality and persona of each participant. To achieve this result, prompts in this study were created to be open-ended questions. Guidelines for the collection of photos in this study could have been presented in numerous ways. According to Tinkler, these include: (a) completely open,

using perhaps one prompt or frame; (b) general focus; (c) scripted (series of prompts or questions); and (d) participant-driven scripts, where participants decide on the parameters (2013, p. 156). Following the type of research questions posed, a collaborative approach, where one or more of the listed approaches is collectively utilized, was most appropriate for this study. The study implemented a collaborative approach with a general focus on aspects involved in meeting theirs and their community's food needs, but students also had the ability to integrate participant-driven scripts. Students were given a simple prompt, "What aspects of your daily life contribute to meeting your food needs?" and had the opportunity to create subsequent prompts as they related to their local food environments and family food needs.

This was also the stage in which photography took place. Limitations of the study population made it necessary to open the parameters surrounding photo collection within this stage, making them more flexible by allowing students to find photos rather than being limited by their environment. This way, participants were more easily able to collect photos and have those pictures reflect what they wanted to convey. It became evident following the initial photo collection period that the vast majority of students were unable to, or unwilling, to take photos outside of their schools. Numerous reasons were given, such as forgetting their disposable camera at home, losing it, or experiencing technological problems with their camera phone. While traditional photovoice occurs with the taking of original photos by students, this was adapted to include other forms of artistic expression prominent in photovoice research, such as the use of collages. Collages have been used in qualitative research to help provide memos, contextualize, and categorize data (Davis & Butler-Kisber, 1999). Furthermore, collages have served to aid

in providing a reflexive process, a form of elicitation, and a means of conceptualizing ideas (Butler-Kisver and Poldma, 2010, p. 3). According to Gerstenblatt (2013), the use of collages in research adds a dimension and depth to the interpretation of photovoice data; subsequently depicting the intricacies of participants' lived experiences. Students utilizing collages within this study were provided an additional week to gather photos for their project and create captions for each picture. A myriad of platforms to acquire images for the collage were given to ensure creativity and voice wasn't being stifled within the project. Students were allowed to draw images, provide personal images, take photos and find photos online. Each form of photo collection was accepted if the students were able to explain the meaning behind each photo as it related to the project prompt. Upon the next meeting with the researcher, all students were able to use the photos they collected or drew to piece together a representation of their perspectives through the creation of collages.

Step Five: Narration

Through this step, Latz (2017) expressed that it is not the researcher's role to interpret photographs, but instead the participants. Latz (2017) further noted that photographs taken during photovoice studies are not data in and of themselves. Instead, these photos are seen as a means to elicit participant responses regarding the presented research topic. In this way, data emerges in the form of participant descriptions of their photography in response to the prompts they were provided (Latz, 2017, p. 74-75). Photovoice provides a much needed narrative to the images through participant interpretations (Wang, 1999, p. 186). For many participants, being in an interview situation can be stressful. Thankfully, the nature of photovoice can help to alleviate this.

Harper (2002) noted that interviews involving discussions of photographs may help both parties traverse the obstacles of in-depth interviewing by allowing participant and researcher to focus on images they mutually understand (p.20). Moreover, verbal exchanges that involve interactions with images, or photographs, engage more of the brain's capacity than reliance on language alone (Harper, 2002). Within this study, students were able to convey the meaning of their photos by sharing their personal interpretations of their self-created collages with the class. Student interpretations were also gleaned from the captions they submitted corresponding with each photo and student interviews.

Through random sampling, participants were asked to take part in semi-structured one-on-one interviews with the researcher, providing additional clarity to the interpretation of their photos. Questions were tailored to the principles of Social Justice theory, specifically addressing aspects of student perspectives and inequalities revealed through the photovoice activity. Interviews lasted between 10-15 minutes and took place in the hallway outside of each student's classroom. The interviews were recorded and later transcribed with a coded name on each to conceal the identity of the participants being interviewed. These interviews provided content verification, which helped to establish data confirmability in the study (Denzin & Lincoln, 2005). Collectively, the methods also ensured photographs were self-interpreted and participants' photo narratives were not subject to the interpretation of the researcher.

Step Six: Ideation

Insights regarding the implementation of this step were not explicitly stated in the outline. However, Latz (2017) has inferred that the Ideation step can be interpreted as the

data analysis phase. While current literature regarding photovoice methodology does not provide sufficient guidance on analyzing data, this step can be done similar to other methods of qualitative research where data is codified and illuminates themes (Hergenrath, Rhodes, Cowan, Barhoshi, and Pula, 2009, p. 688; Brunsten & Goatcher, 2007, p. 47). Moreover, as the ways to approach data analysis are vast, many photovoice researchers are forced to look outside the methodology to choose the best practice for their study. Wang and Burris (1997) propose a three-stage approach: selecting contextualizing, and codifying. Following these stages, it was the role of participants to select photos to be part of the project. This is when the acronym VOICE came into affect, meaning students began “Voicing Our (their) Individual and Collective Experience” (Wang & Burris, 1997). Contextualizing took place as the next stage, involving group discussions, caption, writing, and storytelling. Finally, through the coding stage, participants had the opportunity to categorize data into groups and identify issues, themes, or theories that emerged. Each individual image was taken into consideration, along with the students’ overall collages when making determinations. The researcher served as a listener and guide as students developed and described initial themes. It was not the job of the researcher to make determinations, but instead note the reoccurrences of themes, as described by the participants. Through this role, it was also critical for the researcher to identify any trends or correlations that emerged between and within School 1 and School 2.

Step Seven: Presentation

The process of photovoice is political in nature as the end goal is always to influence change and allow participant voices and perspectives to be heard. As such, an

important step involves the presentation of photos and narratives by participants. In this study, presentation happened in two ways. The first was that students had the opportunity to create and share collages with their peers that detailed their food needs. The second was that participants had the opportunity to volunteer to have their collages displayed around the school and sent to political individuals, such as members of the Kentucky Hunger Initiative, with the purpose of empowering youth and improving food assistance in Kentucky. These platforms for presentation illuminated the stories behind student-chosen pictures detailing personal and community food needs- stories that might have been misperceived otherwise.

Step Eight: Confirmation

A powerful aspect of the photovoice method is its origins in empowerment research, providing a voice to those who feel as though they have none or at least never had the opportunity to share theirs. As such, it is important throughout the process of conducting photovoice to not only allow participants an opportunity to speak, but also a platform to be heard. Thus, confirmation becomes crucial. Whether it was through photography, the writing of captions, or one-on-one interviews, having a conscious step where confirmation occurs was valuable to the photovoice process and its participants. Through this study, confirmation occurred throughout the entire process. Students had opportunities following each sharing of their perspective to reaffirm what they were trying to express. The researcher made it a point to ask verifying questions, reiterating what was heard, to ensure no miscommunication occurred.

Procedures

The purpose of the study was to explore middle school youth perspectives on

local food environments and effective approaches to acquire their self-depicted food needs. The approach selected for the program was Participatory Action Research (PAR). This project focused on student's own perceptions of their food needs. During this phase, 76 middle school-aged youth within Fayette County, Kentucky were recruited to participate. These middle school students were given a chance to think creatively and illustrate what it meant for them to be healthy and what role food played within their lives and communities. Students also thought critically and reported on the environmental factors that influence their food decisions. This was a critical first step in understanding the perspectives of students and creating an initial interest approach and reflection to build from in curriculum implementation.

Following the photovoice methodology, students were presented with a means to take photos. As finances were a limiting factor for this study and students had personal accessibility to smartphones and chrome books (through the school), these methods were utilized. In addition, six disposable cameras and a digital camera were provided out-of-pocket by the researcher to ensure everyone had a means of taking photos, regardless of technological problems or financial limitations. With these devices, students were tasked with capturing and/or downloading images that represented their food environment and factors influencing their food decisions. Students were instructed to pay close attention to the role of food, possible barriers toward receiving it, and their own perceptions of health. Students had one week to take or download photos and create corresponding captions. At that point, photos were sent to email accounts specific to the photovoice project at each school. Disposable cameras were set to be collected and developed, but none were utilized. Instead, the researcher printed all photos submitted to the email address for each

school. The group reconvened a week following photo and caption collection. At this meeting, the researcher provided each student with his or her printed photos. Students were then instructed to create collages that represented their food stories and the food needs they wanted to convey. The following day, students had the opportunity to share their collages with the class and participate in one-on-one interviews with the researcher. Due to time limitations, the researcher came back for an additional visit to interview more participants. During this visit, students were able to volunteer to have their collages displayed around the school to communicate their personal and community needs. Throughout the entire study, the research collected participatory observation notes focusing on recurring themes and ideas presented by students, as well as retained key concepts.

Recruitment of participants for this study occurred as follows: 1) Researchers reached out to teachers within the Fayette County School District to gain interest in project participation; 2) Once teachers agreed to allow the study to take place in their classroom, principals' support was requested; and 3) once principals' consent was received, students, along with their parents/guardians, received assent and consent forms from the researcher. At this time, the researchers provided an explanation of the study and program procedures. Any student questions were then answered. Contact information for the researcher was also provided through the consent and assent forms to parents and students in order to alleviate and answer any questions and concerns that arose through the recruitment process. Those students who returned signed parental consent and assent forms were included in the study.

Qualitative Validity

A colleague, not associated with this study, with research experience in Social Justice theory, was recruited for crosschecking the coding determined by the researcher through student-shared themes. Peer debriefing occurred throughout data collection by an outside source. The interviews, transcriptions, coding and the researchers' reflections were maintained for the credibility, transferability, confirmability and dependability of the results, as well as the feasibility to guide future studies.

Credibility.

Credibility of this study was established through triangulation and member checking. Triangulation was achieved by involving multiple methods and data sources to gain a clearer picture of participant answers to the research questions. For this study, a methods triangulation and triangulation of sources was utilized. The study involved differing data collection methods such as having students submit pictures and captions, as well as participate in one-on-one interviews related to the overarching research questions. In addition, a triangulation of sources was reached by involving different data sources within the same method. This was done by having two different study populations (School 1 and School 2) as well as comparing the differences between student perspectives within those populations. Participants within this study were also given the opportunity to share both publicly (in-classroom discussions and presentation of photos) and privately (one-on-one interviews with the researcher). Both of these triangulation methods helped to ensure consistency of the findings.

Member checking further ensured the study's credibility. Member checking is a technique in which the study's data, interpretations, and conclusions are shared with the participants. In this study, participants were able to play an active role in data analysis

and interpretation by confirming the information that was received at every step of the process. The students, not the researcher, provided explanations for photos that were shared and identified themes from the data. This step allowed the researcher opportunity to clarify intentions, correct errors, and gather more information from participants, leading to the study's overall credibility.

Transferability.

This study demonstrates transferability through thick description and potential applicability to other contexts. The technique of thick description was utilized to provide a robust account of the experiences that occurred throughout data collection (Geertz, 1973). Furthermore, with the research of this study grounded in student experiences, a concerted effort was made in forming explicit connections to the social and cultural contexts of participants in this study throughout data collection. Details such as the research occurring as part of participating students' regularly scheduled classes were necessary to provide the full context of the research process, allowing the study to be replicable with all surrounding variables and implicit biases considered. The researcher also provided a full background of demographics and imagery for School 1 and School 2, constructing the scene surrounding the research study and the daily lives of participants.

Confirmability.

The confirmability of this study is supported by an audit trail and reflexivity. Data collection and findings were based on participant narratives rather than that of the researcher. This was done to avoid corruption by researcher bias. An audit trail was used to detail the data collection process, including analysis and interpretation of data. The researcher kept detailed records of the entire process, including any stand out topics,

coding, rationale for merging codes together, and an explanation of theme meanings as detailed by the participants themselves. A synthesis of these details is outlined in the coding and findings sections of this article.

Reflectivity was also useful in providing confirmability. By adopting a reflexive attitude, the researcher of this study was able to evaluate their own background and the influence of their position within the study. Through this process, the researcher revealed their power in selecting the research topic, choosing the methodology, and presenting conclusions. The researcher also admitted an influence in analyzing and interpreting data. Although participants conducted this portion, the role of the researcher in recording student findings and themes allows an opportunity to impact the data. In order to minimize this risk, the researcher maintained a reflexive journal and provided entries following each school visit. The following vignette was taken from a journal entry following data analysis:

I feel as though it is necessary to admit several personal biases that relate to this research. First, my background is not far removed from the narratives shared by these students. As they told their stories, I couldn't help but notice nuances within my own. While I was raised in a middle class family in a suburb of phoenix, my family has felt the sting of hunger and food insecurity. I can vividly remember times in my life where I'd open the doors to an empty fridge repeatedly as if food would magically appear out of my hunger, but it didn't. Save for the times my father would cook us dinner. He'd always miraculously find a way to provide food, even if it meant another meal of rice and hot dogs. Oddly enough, I never got tired of this meal, nor did I realize my family's struggle with food insecurity until much later when I began to unpack my own fascination with food justice. I now feel the truth to the old adage, "it takes a village to raise a child," and recognize the village of people and organizations aiding my family in providing us food. My village came in the form of my mother's coworkers who would offer small loans of \$20 to her so that she could buy groceries for the next few days. It also came in the form of church and community food banks that would offer boxes of food to those who showed up. I am thankful we had a running car at the time, and the appropriateness of aid, to benefit from this assistance. As each person's experiences and needs are uniquely theirs, I made a conceded effort to

remain absent from assumptions and categorizations of individuals. Instead, I placed this responsibility on the participants themselves, challenging them to appropriate their own themes from their self-prescribed needs and eating habits.

While many of the researchers personal struggles with hunger and food security resembled themes that emerged from students in the photovoice activity and subsequent narratives, it was important for data analysis to remain unbiased. The reflexive journal was one method of ensuring impartiality in the study.

Dependability.

Dependability was achieved through this study by an inquiry audit. The inquiry audit took place by having an outside researcher review and examine the research process and the data analysis, ensuring the findings were consistent and repeatable. The outside researcher looking into this study deemed the finding to be accurate and supported by the collected data as interpreted by student participants.

CHAPTER 4

RESULTS

The purpose of this study is to identify local food environments and approaches to acquire food needs as depicted by food insecure youth.

Research Questions

RQ1: What do selected youth identify as approaches to assisting their food needs?

RQ2: Do youth identify areas where food injustice exists?

The reality of hunger and the phenomenon of food insecurity within the U.S. is a complex issue that is difficult to address. This issue can be even more difficult for youth to tackle, as their ability to get food often hinges on factors outside of their control.

Within the study population, it became evident that many individuals being interviewed had never considered their means of obtaining food, had never thought to identify their food environment, nor had they a full context of understanding of the hunger that exists in their community. While some food choices in regards to taste preferences or sports involvements was shared, very few students expressed power in the decision making process at all when it came to the food they consumed. School 1 appeared to be particularly unaware of this issue and even went so far as to say they had no influence in picking the food they consumed.

Overall, it was clear through interviews with participants from both schools that perceived food needs varied from school to school as well as from participant to participant. While some students outlined healthy eating as an essential part of meeting their food needs, others focused on taste or convenience to be able to eat food on the go.

However, universally, when students were asked if they felt as though their food needs were being met, they felt as though they were. This was not the same for their perspectives of members within their communities. While student's opinions varied regarding the level of control individuals had over their financial situations, and had difficulty pin pointing areas in their community where food inequity exists, each student agreed that not all of their community's food needs were being met. Food needs in this case were outlined and confirmed by students and understood by the researcher to mean the type, quality, and quantity of food intake necessary to sustain life.

Demographic Analysis

A Tale of Two Schools

While food insecurity remains an issue in all parts of Lexington, Kentucky, the U.S., and the world, every individual facing hunger has their own story to tell. Many struggles may remain similar among perspectives. However, no one story can hope to encompass the entirety of everyone's struggles. Therefore, as this study delves into the thoughts and narratives of individuals within communities of Lexington, Kentucky with high rates of food insecurity, each struggle with hunger can look different and should be acknowledged as such. As each person's experiences shape the ways in which they interact in the world and with each other, so too this study seeks to provide a platform for those voices and stories to be heard. This research tells the story of youth within two distinctly different schools in demographically opposite areas of Lexington, KY. While similarities and differences can emerge by weaving together these stories, it is also important to acknowledge each school's and subsequently, each student's individuality.

School Breakdown

All students in this study were enrolled in an agriculture science course within a middle school program in the Kentucky Fayette County Public School System. While they may have discussed topics related to food before, this was the first time any of the participating students were introduced to concepts related to food justice. The sample consisted of eighth grade students enrolled in School 1 (n=19), and seventh and eighth grade students enrolled in School 2 (n=57) with a total population of n= 76. Gender classification for School 1 were female n=5, male n= 14 as seen in figure. Gender classification for School 2 were female n= 21, male n= 36 as seen in the same figure.

Table 4.1

Number of Student Participants by School and Gender

Institution/Class	N	Males	Females
School 1	19	14	5
School 2	57	36	21
Total	76	50	26

The sample population of this study revealed diverse narratives of two Fayette County Public Schools in Kentucky. The first, identified as School 1, has a high population of students with Hispanic descent and a roughly equal distribution of genders. Majority of students within this school qualify for free and/or reduced lunch. This school is also categorized as having a large percentage of students with limited English proficiency (Fayette County Public Schools, 2018). School 1 also represents a community with low SES and high food insecurity, a contrast to School 2, which exists in a more affluent area of Lexington, KY.

School 2 has a high population of Caucasian students and a roughly equal distribution of genders. While not as high as school 1, school 2 also exhibits a high rate of students that receive for free and/or reduced lunch (four out of every 10 students). Also, different from School 1, this school has an average percentage of students with limited English proficiency and is nestled within an affluent suburb of the community (Fayette County Public Schools, 2018). Interestingly enough, this school exists in an area where travel is required to visit a grocery store, yet more individuals are food secure than that are in the community of School 1, which has many local restaurants and a grocery store within walking distance.

Visually speaking, School 1 was one of those schools just off the freeway; if you blinked you'd probably miss the turn off. From the outside, you'd never be able to tell the struggles or the rich culture of the students within it. The building was made out of red brick with a shady covering lining the walkway to the front door. While not noticeable to the eye, on paper, it was apparent that poverty hit this community hard. The majority of students qualified for free and/or reduced lunch so everyone received it. The surrounding community told a similar story. Food initiatives were replete through this area and the classrooms reflected the ethnic diversity of the surrounding neighborhoods with many Hispanic and African American students present.

School 2 was a beautiful cream and tan-colored school nestled in the back of an affluent neighborhood where all the houses, while large, looked mostly the same. Upon arrival, I wondered if the building was deep as it was long. Looking into the parking lot, I could already tell I was in a different area of town- if the houses hadn't already given it away. Walking through the hallways, it looked like everything a student could possibly

desire or need to learn. Hallway wings separated out subjects and grades, and most of the students appeared to be white.

The SHOWeD Method

This study utilized the SHOWeD method of data collection within Photovoice methodology. Following this method, questions were created to build upon one another, starting from a question of what physical photos participants shared and ending with an action question of what can be done about the issue of hunger. The questions built as follows:

1. What do you **See** here?
2. What is really **H**appening here?
3. How does this relate to **O**ur lives?
4. Why does this condition **E**xist?
5. What can we **D**o about it?

Presentation of Findings

The findings from this study were numerous and encompassed several recurring themes in accordance with the proposed research questions. Within research question one, four themes were identified in addressing student food needs: (1) Health/Nutrition; (2) Power/Voice; (3) Barriers; (4) Choice. Through the consideration of research question two, students were able to identify areas where food injustice exists. Three subsequent themes emerged through student responses: (1) Hidden hunger and (2) Awareness.

Research Question 1

Perceived approaches to addressing students self-reported food needs were addressed through Research Question 1. Through the data collection and analysis phase, four overarching themes were identified along with subsequent subthemes to correspond with Research Question 1. The themes are as follows: (1) Health/Nutrition, (2) Power/Voice, (3) Barriers, and (4) Choice. Health and/or nutrition can be identified as students perceptions of a need for health and nutrition in meeting their daily food needs. Power and Voice are defined through this study as the perceived decision-making power youth have over the food they consume and meeting their food needs. Barriers were identified by students to mean those physical and social obstacles necessary for someone to access the food they need. Finally, Food Choice was expressed as those deciding factors that lead to a person choosing one food item over another and the need for preference in meeting someone's food needs.

Health and Nutrition.

Students shared mixed opinions on the role of nutrition and health to satisfy a person's food needs. On a personal level, many students revealed this to be a lesser factor in influencing the food that they ate than taste, preference, or convenience. In fact, when asked what was necessary to meeting their food needs, many students omitted health and nutrition all together. However, this was contrary to the beliefs students held about meeting the food needs of others in their community. Interviewed students almost always agreed that health and nutrition were important parts of meeting the food needs of others. This corresponds more closely with the USDA's definition of food security, which states that food security is "the state of having reliable access to a sufficient quantity of affordable, nutritious food (2017)." Students from School 2 appeared to be more health

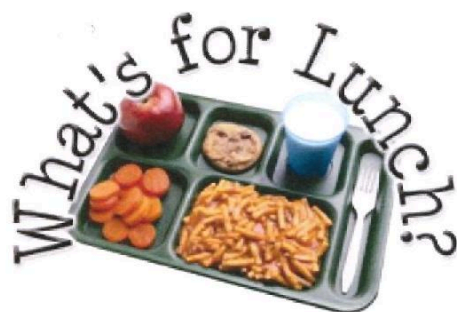
conscious than students from School 1. A student from school 2 stated in a one-on-one interview with the researcher that, “everyday before track or cross country practice I eat peanuts because they have many health benefits and is a snack my house always has.” A peer of hers further stated in their interview, “you have to eat to be healthy and play with friends.” One student in *Figure 4.1* also connected health to the food they receive at school, explaining that it does not meet their food needs.

coke



My family loves coke because it is so good but it is bad for our health.

School lunch



School lunch is disliked by many because it is unhealthy is tastes bad and it is smells like tear gas.

Figure 4.1 A student from School 2 shared a photo representing their school lunch and stated, “School lunch is disliked by many because it is unhealthy, it tastes bad, and it smells like tear gas.” The same student also explained in his presentation to the class that his family, along with a lot of his peers, drink coke and that it is not good for your health. He thought school lunches should be healthier and tastier.

Another student, in explaining their reasoning behind the pictures they took, discussed the relationship between food and community, as well as the health implications of dental hygiene on meeting youth food needs (*Figure 4.2*).



Figure 4.2 I chose to take these photos because they all show one meaning of community and food. I took a picture of teeth because it's the way you eat, so the better the dental hygiene you have, the more food you can eat. This also goes back to health and having enough money for dental care. Without it, it might be hard to get the food you need.

Power and Voice.

Perhaps the most evident differing result from School 1 and School 2 was the difference in students' perceived power and voice in selecting their food needs. The students from School 1 reported less involvement in their eating decisions, with many of them being fully reliant upon their families to make their food decisions for them. In

Figure 4.3. A student from School 1 shares a photo of what they eat when there is little food left in the house, because they have little control over what is available to them. For those from School 2 who did feel as though they had more of a say in the food they consumed, it was clear that family dynamics still played a factor. One student utilized her photo collage in *Figure 4.4* to express the many ways in which her family, and the memories they share together, shape her food experiences and choices. While her decisions are heavily influenced by family, she exhibits a strong voice of her own.

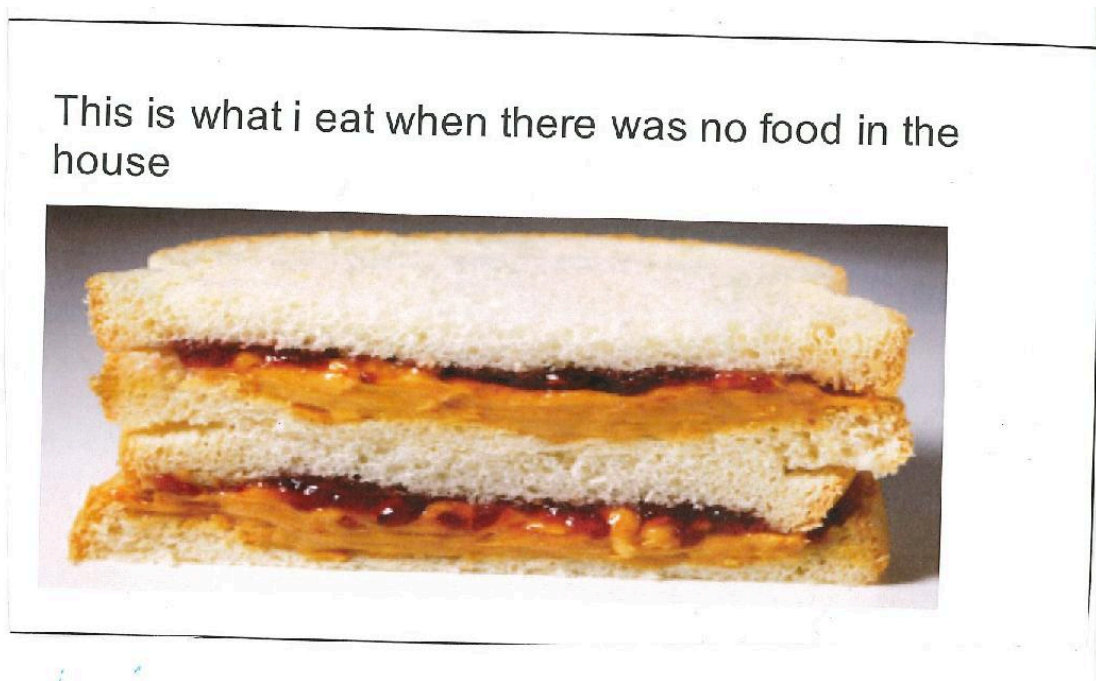


Figure 4.3 One student from School 1 shared a picture on their collage of a Peanut Butter and Jelly sandwich with the caption, “This is what I eat when there was no food in the house.”



At archery practice, our coaches sometimes gave us Graeter's gift cards for shooting all nines and tens at fifteen. None of us have used them yet, but we all say that we are going to go get ice cream together some time.

Figure 4.4 A student from School 2 wanted to share how her family influences her food choices and what has become her favorite foods. In this collage she shares memories of going to the Melting Pot in Louisville, and having food with her family. In one caption she states, “My stepmom makes the best spaghetti. It is my brother’s favorite food, and we are always excited when she makes it.”

However, students from both schools appeared to be heavily influenced by their social and peer groups. In sharing favorite foods, many students shared memories of eating with family and friends, receiving food as a reward following a sports event or special occasion, or simply liking the same food as their friends. Regardless of the context, students revealed that their family and social environments play a major factor in the food they eat and their perceptions of personal food needs. One student in particular shared a rich story of when her mother was attending college and she received all of her food from her grandmother. She also explains how the stigma of her friends shaming her into eating less played a role in her eating habits. This visual can be viewed in *Figure 4.5*.

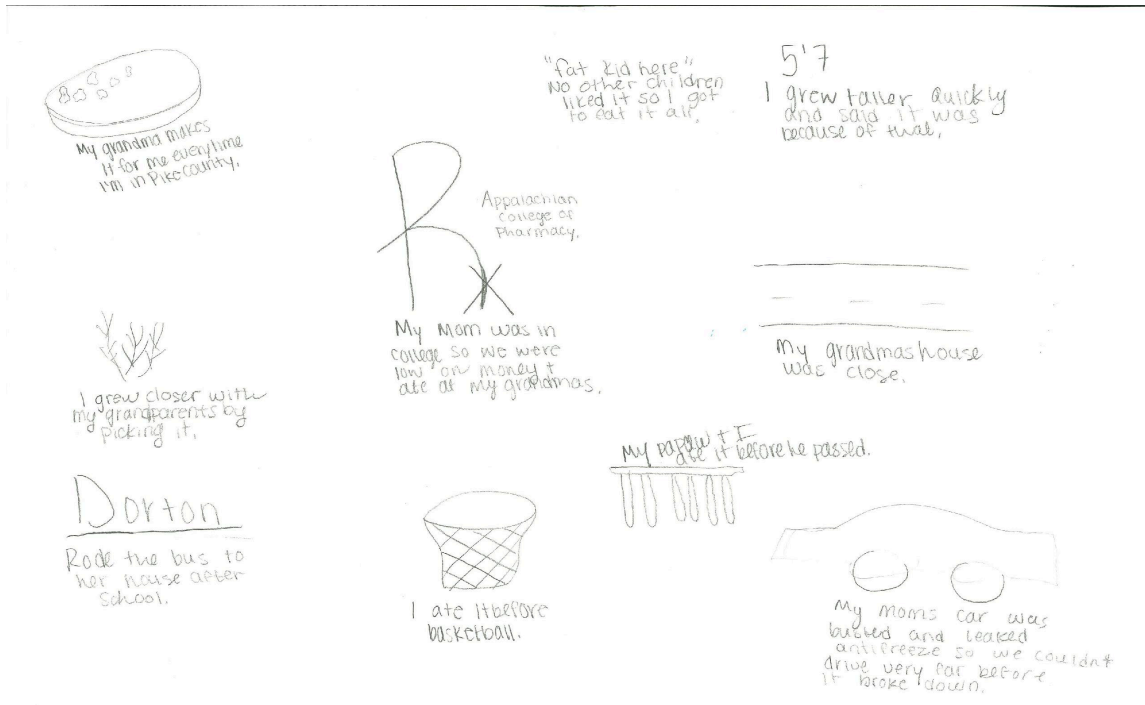


Figure 4.5 This student from School 2 shared how her family impacted her ability to get food. In a one-on-one interview, she shared a story of struggling with hunger and having to stay with her grandma while her mother was going to college. Her grandmother was the source of most of her meals growing up.

Perceived Barriers.

Student's revealed a multitude of barriers that influence the prominence of food security within their local environment. While these barriers were posed in a community context, most students chose to identify barriers as they experienced them in their daily lives. Traditional themes related to accessibility, such as transportation and location, emerged as students identified the lack and prominence of food in their respective neighborhoods. In *Figure 4.6* a student from School 1 outlined the need for a vehicle and the impacts of transportation on a person's ability to get food.



Figure 4.6 People without vehicles have to walk to get food, which uses energy, which they get from food. This means they either buy more food or be more hungry. With a vehicle they wouldn't have to spend as much energy, and they can get it faster.

Additionally, students identified finances to be the most influential boundary to meeting their community's food needs. This factor is illustrated in the collages within *Figure 4.6*, *Figure 4.7* and *Figure 4.8*. Other identified barriers included transportation, education, and job status. While some students believed that the issue of low finances was something out of the control of a person facing hunger, and something that should be dealt with as a school and/or community, many students believed that food insecurity was a personal choice made by individuals "too lazy" to get a job.



Figure 4.7 A student from School 2 wanted to share the barriers that influence her ability to get food. She mentioned transportation, money, her school and family environment, and her ability to get to her local grocery store.



Figure 4.8 This student chose to draw their photo collage and depict the factor they felt most contributed to meeting their food needs and the needs of people in their community, finances. In their picture, they shared the foods they typically enjoyed with the prices listed on them.

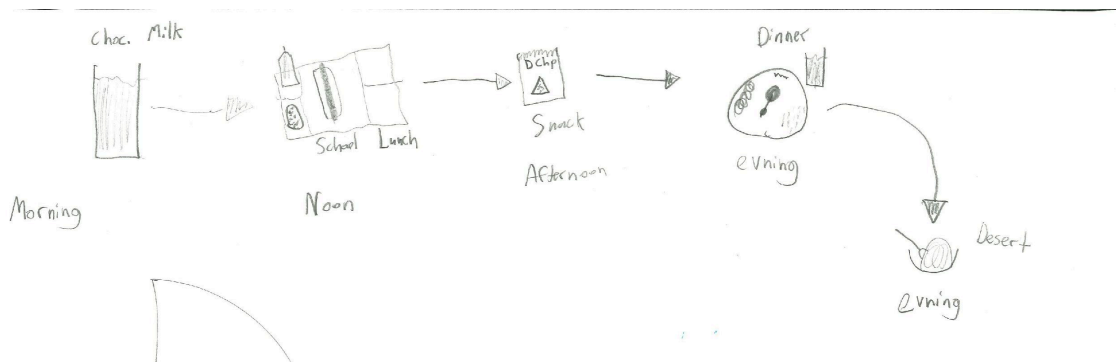


Figure 4.9 A student from School 1 decided to share the norms of their daily eating experience. This student shared that they only have chocolate milk for breakfast because their family doesn't make much money and that they receive lunch from school. The student's favorite part of the day is the evening, because that's usually when they get to have ice cream.

Although differences of opinion occurred throughout each school regarding this question, prominent differences were also witnessed between School 1 and School 2.

School 1 more consistently shared the perspective that meeting food needs was something that each person had control over. Whereas the majority of individuals at School 2 saw this as being connected to having a job and recognized that there are outside strategies that could influence food security.

Food Choice.

Perhaps the most repeated factor student's categorized as necessary to meeting their food needs was food choice and preference. When talking about the food students consumed or would need on a daily basis, they consistently stated a need for food that they enjoyed eating. For students at both schools, this often included what they categorized as unhealthy or "junk food" with little nutritional value. For these students, having food that they enjoyed eating was more important than meeting their daily nutrition and health needs. Among the students who identified having their favorite foods as part of their food needs, the origin and categorization of these foods sometimes differed. It should be noted that some students from School 2 did enjoy eating what they categorized as "healthier foods", such as vegetables. However, these students were in the minority, only making up a fourth of the class. Moreover, the classification of "healthy foods" also differed from student to student. Some of the students at School 2 identified food such as potato chips and butter as being healthy and part of their food needs, among other things. It is evident there may be some confusion among the interviewed youth as to what healthy means and what is necessary to meeting their nutritional needs. Moreover, there were variances in the identified origin of student's favorite foods from those who shared where they derived from. Some students gained their favorite foods from foods they were introduced to by friends at school. Some came from food they had growing up,

and others evolved from celebratory experiences or foods they received as a reward for doing well. Almost always though, food was categorized as a favorite food due to taste and student preference. In *Figure 4.10* a student from School 1 details through her collage all of the factors that influence her food choices.



Figure 4.10 A student from School 1 shared the factors that influence their food choice. While many can be listed as barriers, this student emphasized the impact of advertisement, her school environment and location, and her family’s influence on the foods that she eats.

A prominent factor that was discussed by students from both schools was the topic of school lunches and the insufficiency of these lunches to meet their food needs. Many students at School 1 felt again as though they had no allowance to be able to make food choices related to their lunches at school. In *Figure 4.11*, one of these students resorts to eating chips at home to fill their belly since they were still hungry leaving school. Almost universally, students who talked about school lunches referred to them in a negative way or offered suggestions for ways to improve them. However, students from

School 2 exhibited greater perceived power in making their own food choices. In *Figure 4.12* and *Figure 4.13* students depict a need to improve lunches provided by their schools and the choices they've made as a result.



Figure 4.11 This photo was taken from one of the student collages at School 1. The student wanted to show a need for more food in the school lunches. He stated in his caption: “I eat barbecue chips because school food is bad and doesn’t fill me up so when I get home I eat these.”

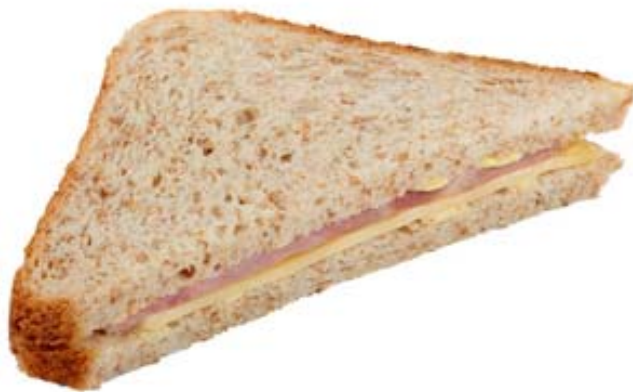


Figure 4.12 To describe her food environment, Sarah, a student from School 2 submitted this picture with the caption: “At school everyday I pack a ham and cheese sandwich for

lunch. I pack this sandwich because it is very easy to make, and I don't want to eat the school lunches. "

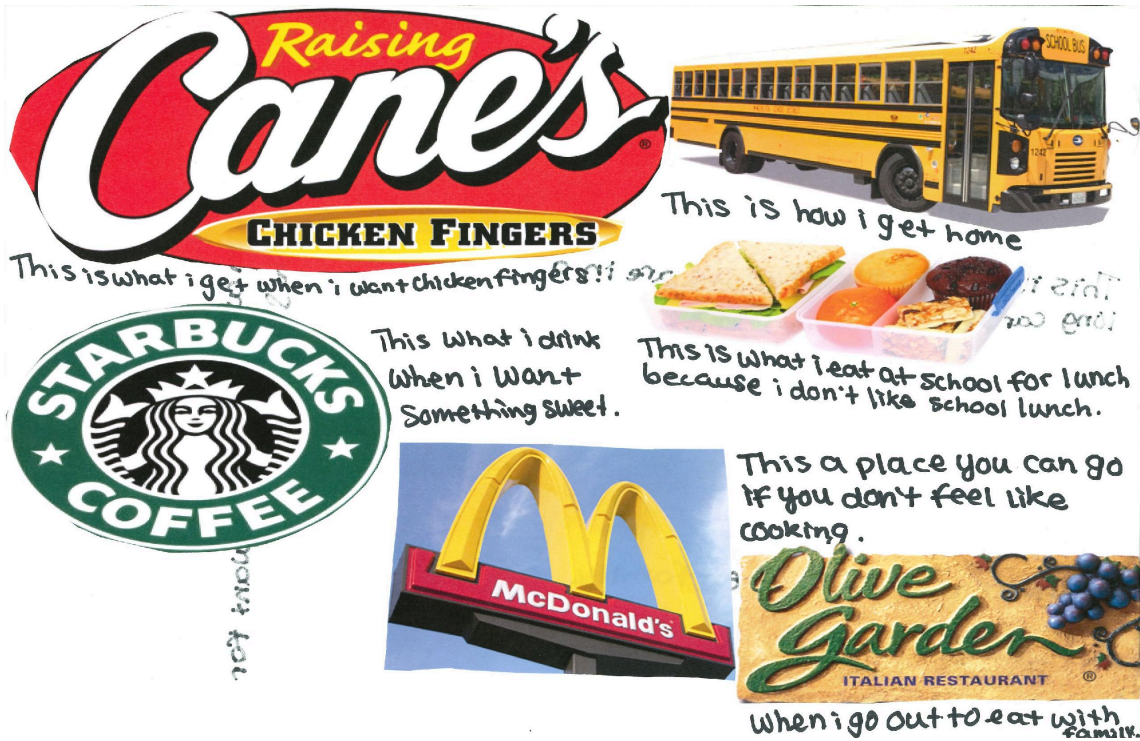


Figure 4.13 One of the students from School 2 wanted to share their food environment by showing some of the places they eat food. This student pointed out a significant meal, the lunch they have at school. He stated in his caption: "This is what I eat at school for lunch because I don't like school lunch." The student later reiterated in an interview how the school lunches don't satisfy him.

Research Question 2

Student identification of areas where food inequity exists in their community was addressed through Research Question 2. Through the data collection and analysis phase, two overarching themes were identified along with subsequent subthemes to correspond with Research Question 2. The themes are as follows: (1) Hidden Hunger, (2) Awareness. Hidden Hunger was described by students to mean the knowledge of food inequity in the community with a lack of awareness for where that inequity exists. Awareness was

defined by participants to mean having a knowledge of areas within their community where food inequity exists and being able to identify a means of addressing that inequity.

Hidden Hunger.

When asked to identify areas where hunger exists in their communities, students participating in this study admitted to being unaware of where those areas might be. Many felt as though unequal access to food was an issue relegated to other parts of the world, namely Africa. When asked to identify communities without equal access to food, a student from school 1 exclaimed, “The little like people in Africa, they can’t eat because I don’t know why, but they just don’t have food. They don’t have grocery stores.” Even among students who recognized that inequality in regard to food was present within their community, many could not provide any context of situations where this occurred.

Awareness.

While more knowledge and awareness can be gained regarding the prevalence of food inequity among involved students in this study, some students did express a need for awareness among food assistance initiatives as well. Overall, students whose families had previously experienced food insecurity and overcame it expressed the greatest level of awareness, detailing more specific instances of food inequity within their community in connection to personal experiences. One student from School 2 shared a personal experience with food insecurity, stating “there were times when we didn’t always have food at my house so my mom had to work very hard for us to get food.” When later discussing areas of food access inequality, the same student brought up the concept of awareness, reiterating, “sometimes in the lunchroom, even if a kid doesn’t have money,

they still give him the food, but they address it wrongly so I would feel very embarrassed if I didn't have money in my lunch account because they'll call you down about it." It is clear through this story and the telling of narratives from other students that there is a need for greater awareness among the community and their peers in regard to food security. When asked what they wanted people to understand from seeing their photos, a student from School 2 shared, "Not everyone has the same opportunity to get food and not everyone has always had food and some people take food for granted and you never know where people come from so you need to be aware of that."

Furthermore, students within School 2 provided suggestions on how they may be able to influence change through their photos. When asked what they wanted others to gain from viewing their photo, one student shared, "I think it would be that you gotta eat healthy and not all of that stuff (in the image) because I've just had a lot of (fast food). I've had like burger king and taco bell and that stuff is not good for you, but that's sometimes life." Another student from School 2 stated, "There's a lot of cafeteria food that's being wasted. They could just put them in containers and send them home with the kids who need food and some of them could have a lot of food for the weekends and stuff."

Students from School 2 also exhibited more awareness of their food environment as a whole. In *Figure 4.14*, a student from School 2 expresses their perception of the process of food from pasture to plate, and the food buying decisions that are made in each stage. This shows an overall more complete understanding of what goes into getting food to families. While this student was the only one to capture the pasture to plate journey of food in their photos, their population sample as a whole expressed more community

awareness than that of students from School 2. Many students from School 2 ended their telling of influences to food security at reaching the grocery store and paying for food.

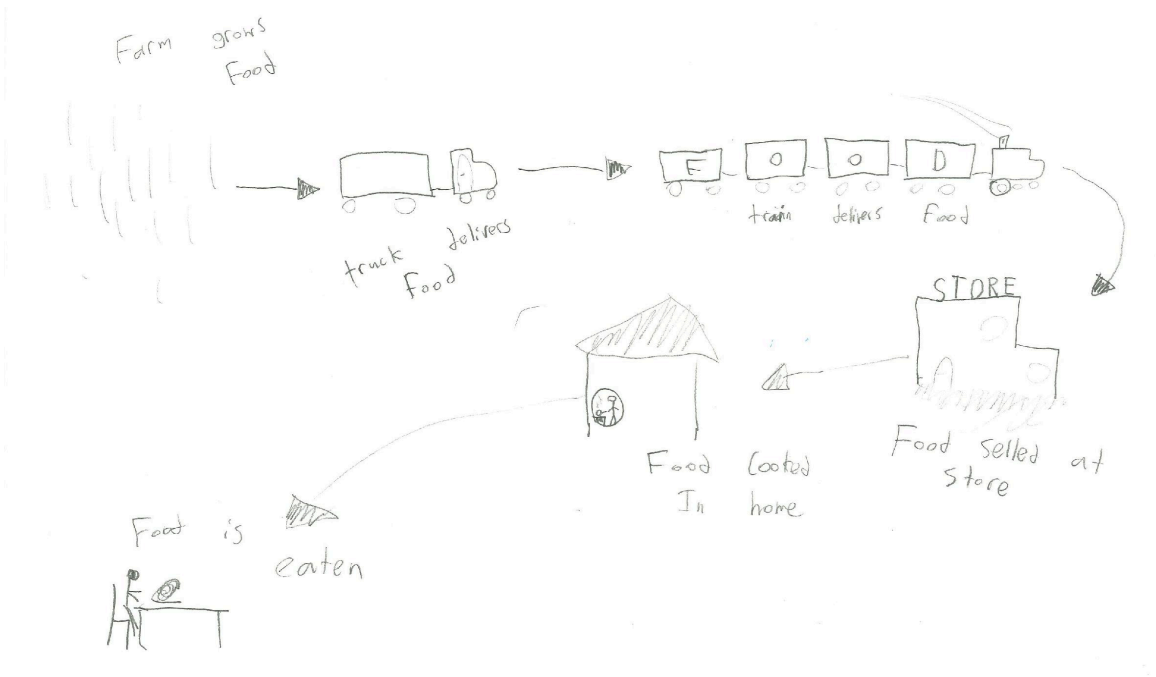


Figure 4.14 A student from School 2 chose to draw a picture of their food environment and the path their food takes to get to them. This student explained that food is delivered by truck from a farm to the store to get to his family where it is cooked and eaten.

CHAPTER 5

CONCLUSIONS, IMPLICATIONS, & RECOMMENDATIONS

Introduction

Perceptions of students regarding their food needs and addressing areas of inequity is crucial in developing best practices to address issues of hunger. In this chapter, the researcher will delve deeper into findings and results as analyzed the participants, compare to pre-existing research and provide suggestions and future strategies.

Statement of the Problem

Several themes emerged from this study that were identified by participants to address the proposed research questions. For research question 1, students identified subthemes that led to four overarching themes for the study: (1) Health/Nutrition, (2) Power/Voice, (3) Barriers, (4) Choice. Students also identified two themes in response to Research question 2 regarding areas of inequity in their communities. These themes include: (1) Hidden Hunger and (2) Awareness.

Review of Methods

A Photovoice method was used through the Community Based Participatory Action Research approach to conduct this study. Middle School students, age 11-14, were recruited from two cross-town schools in Lexington (n=76) as participants this study. Prior to Photovoice implementation, students were given a brief overview of the study an outline of their role, and parent/guardian consent forms. A week was given for students to collect parent signatures before another visit with the researcher, in which students that submitted consent forms received assent forms to be signed by themselves in an

agreement to participate in the study. After assent forms were received, participating students were engaged in a group discussion breaking down the term Photovoice and what their project would entail. At this time, students had the opportunity to ask questions of the researcher. Participants were also introduced to the ethics of photo taking through a group discussion and given written guidelines for what to take photos of and what not to take photos of.

The day following the initial discussion, the researcher returned to introduce the Photovoice prompt. Students were given the opportunity to answer an example prompt regarding their food environment. Once a consensus had been reached regarding the understanding of the activity, students were given their study prompt and asked to take photos over the course of the following week. When the researcher returned, all photos were collected. For those individuals who had difficulty taking original photos, an additional week was provided to obtain photos through drawing or searching online. After that timeframe passed, the researcher returned to discuss the photos with participants. At this time, participating students were asked to create a collage from their photos detailing what they wanted the community to know about their food needs. Each student had the opportunity to share their collage with the class. The following day, the researcher returned for a final visit in which student interviews were conducted at random with those who participated in the study. At this point, students could choose whether or not they wanted their poster to be displayed around the school and in communicating their community's food needs.

Results

The students used photos to illuminate a diverse array of structural and social influences on meeting their food needs and creating areas of injustice within their communities. Through the process of sharing and discussing their photographs with one another and the researcher, they identified commonalities in the barriers and influences present in their communities. Overall, the students were very thoughtful and creative in their selection of photos and construction of collages. The end result painted an artistic and compelling view of their perspectives and identified food needs. While a lot of the barriers and influences they identified reaffirm other data sources detailing food insecurity, the vibrancy of the narratives and collages students shared create a more complete story of the issue in relation to their community. It was also clear to see that students enjoyed their involvement in this process. Although students showed an initial reluctance to stay on task and complete the photo collection, excitement built with each following visit. Students began to share their enthusiasm to see the researcher and share their photos. While the participants involved in one-on-one interviews were selected at random, many students even attempted to volunteer out of their excitement.

Despite the positive feedback from students and involved faculty, there remain three areas for growth in which the researcher can employ the findings of this study. These areas are: (1) Teachers and School Administration, (2) Community Leaders, and (3) Politicians.

The findings of this study suggest that several areas contribute to meeting the perceived food needs of youth in the two cross-town schools involved in this study. First, it became apparent through repeated occurrences with students that meeting community food needs means re-evaluating school lunch programs. While student from School 1 and

School 2 shared differing opinions on the importance of health and nutrition in meeting their food needs, it was universally agreed that school lunches did not fit the needs of students in the areas of health or taste preference. Some students provided additional information regarding the social environment surrounding food and how those students needing food assistance are singled out and made to feel worse. In moving forward, it is recommended that educators, legislators, and school policy members keep in mind the intricacies of meeting youth food needs and approach students with dignity when providing much-needed assistance.

The interconnectedness of factors found in this study is similar to other research which has used photovoice to identify emergent themes related to people's eating behaviors, specifically identifying those factors related to obesity and maintaining a healthy diet (Watts, et al., 2015; Castellanos et al., 2013; Findholt, et al., 2011; Kramer et al., 2010). While there is a lack of research detailing youth eating behaviors in regards to meeting their self-perceived food needs, the Analysis Grid for Environments Linked to Obesity (ANGELO) framework (Figure 5.1) used in previous studies holds overarching themes similar to those found in this study. The ANGELO framework details the interconnectedness of environmental influences on eating behaviors. While availability and access to food outlets are prominent factors shown to influence healthy eating practices, those factors may be eclipsed by other non-physical environmental considerations, such as food regulations and socio-cultural preferences. Likewise, the findings of this study reveal relationships between environmental constructs and the themes outlined by participants. However, it became apparent through this study that students' sociocultural environments may play an even larger and more direct role than is

accounted for in the ANGELO framework. As such, the ANGELO framework was modified (Figure 5.2) to reflect the narratives, eating behaviors, and perceived food needs of youth from two cross-town middle schools in Kentucky.

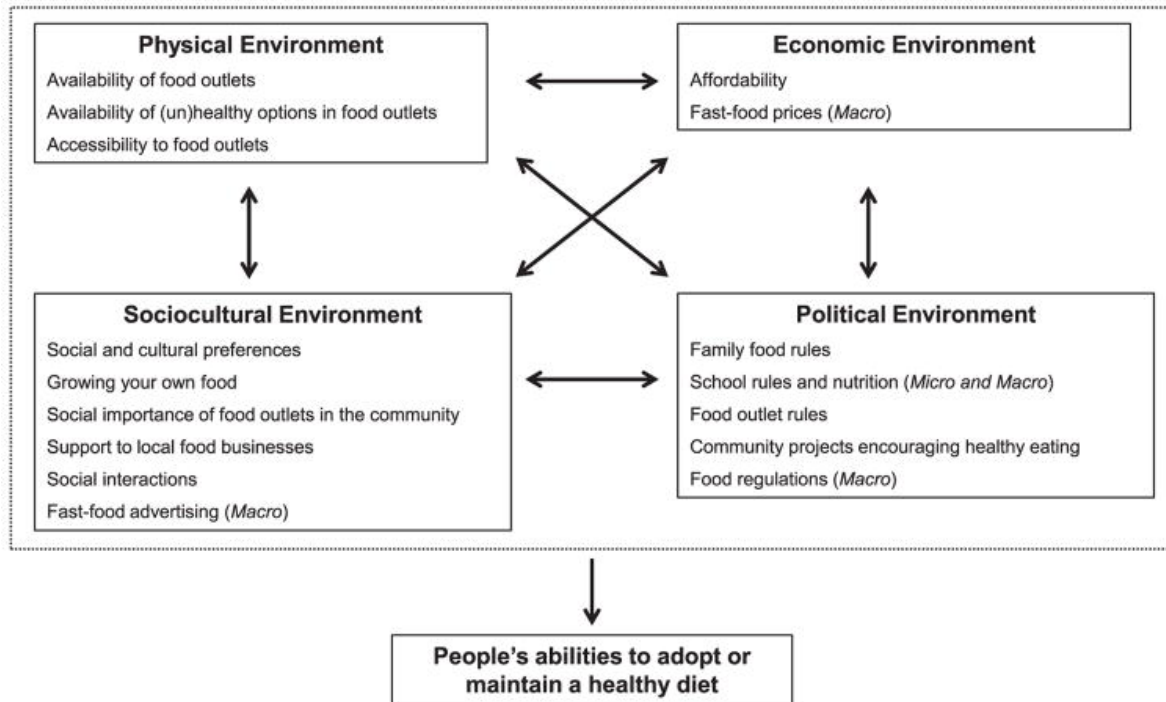


Figure 5.1 The Analysis Grid for Environments Linked to Obesity (ANGELO)

framework

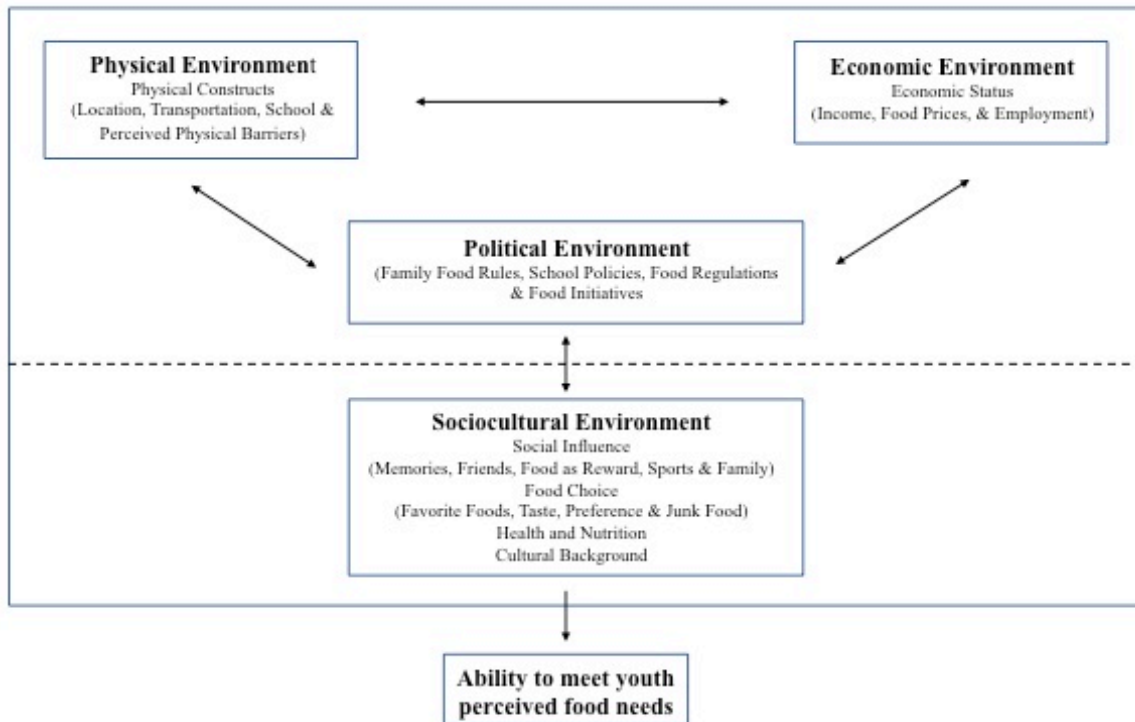


Figure 5.2 Youth participants’ Photovoice themes on eating behaviors, modified from the ANGELO framework used in Photovoice research.

Similar to previous research, the diagram in Figure 5.2 cultivated from youth perspectives outlines an interdependent connection between Physical, Economic, and Political environments. Where this cycle differs is the connection between these factors and the sociocultural environment of students, the category holding the most student identified themes in this study. Through students telling’s of their food needs and perceived barriers to equity in their community, it became evident social groups play a prominent role in their eating habits and perceptions of food needs. Student’s favorite foods and preferences were often explained in regard to memories and traditions they have with family and friends. Some students additionally detailed the impact of their cultural background, mentioning food specific to their ethnic culture that their family enjoys together and the importance of that in meeting their food needs.

The political environment is shown in the diagram to feed into the sociocultural environment. While physical, political and economic environments are expressed as interdependent, and equally influencing the sociocultural context of students, the political norms or rules surrounding the household outline the boundaries for which the sociocultural environment exists. For example, students reported eating ramen noodles because it was sometimes the only thing in their household or the only thing their family could afford. The student's food choice in this scenario is most directly influenced by what is provided through their family (social). However, the financial (economic) barriers of their situation create a context of what they can and cannot buy, setting regulations (political) on their household that influence their social environment. Moreover, while students from School 1 and School 2 often told narratives of differing socioeconomic backgrounds, this process remained the same for each student. Meaning, students coming from more affluent neighborhoods and families still made eating decisions and conceptualized their food needs based on their sociocultural environment, which was influenced by the political, physical, and environmental constructs of their situation.

The dotted line between the sociocultural environment and the above cycle represents the threshold of awareness students have regarding their food environments and barriers to food security within it. While the findings of this study detail the various ways in which students identified and proposed to address issues within their communities, their suggestions and scenarios were often rooted in the sociocultural environment. This can be seen in the myriad of stories shared about school lunches by youth participants. One student specifically pointed out a need to better the social stigma surrounding food lunches. She told a story about how embarrassed she would be to not

have enough money for food because her school does not deal with it properly and calls the person out in front of all of their peers. In this scenario, the student identified an area of need in her community and a personal awareness of that need. However, it was rooted in the social perceptions of her classmates and didn't quite reach an understanding or examining of the school policies and leadership that might be influencing that problem. These findings suggest that as students' own food environments are cultivated by their sociocultural surroundings, so are their understandings of issues related to meeting their food needs. This is not to say that students can't exhibit awareness for broader issues within the community related to food. However, to reach that level of understanding and awareness may require more empowerment of student voice. It should also be noted that students did identify themes related to their physical and economic environments. However, these reporting's were often eclipsed by sociocultural factors or categorized within hidden hunger. Students identified inequity within their communities, but could not pinpoint where it existed.

Further reinforcing the concept of sociocultural environments as important to building student perceptions of their food needs, participants reported taste and preference to be greater factors influencing the ability to meet their food needs than health, which has previously been regarded as the main consideration in providing nutrition through food initiatives. Health is obviously an important factor, but this study suggests future research and aid take into consideration the appropriateness of the food that is being presented to individuals, and especially youth, who are in need. Similarly, many students also brought up the notion of culturally relevant food when discussing their food needs. Thus, it may also be useful when forming policies and practices aimed

to improve the food security of communities to take into consideration what is culturally appropriate for those communities.

Discussion

The use of photovoice in this study provided benefits that extend beyond the initial aim of the research. First, the method enhanced the quality and credibility of research findings by allowing the research to receive first hand narratives of local youth. The study found that participants of this study were willing to share their personal experiences and perspectives regarding food needs in their homes and communities. In addition, while most concepts involved in this study were new to students, they were readily able and willing to tackle them. Students were able to utilize a variety of methods to convey community assets and barriers to food justice, as well as identify those themes that emerged in the photos and stories. Many of the participants expressed excitement to finally have their voices heard, as they articulated frustrations with school based programs and not having their opinions taken into consideration by adults within the classroom or when addressing food needs. Contrary to this, discussions with school board members, political representatives, and teachers revealed that community members were indeed interested in hearing from youth. Thus, the research suggests a need for more conversations involving youth and the implementation of these methods to help facilitate those discussions. This method is also beneficial in increasing awareness of the conditions impacting food security within Fayette County. It has not been assessed yet whether or not increased awareness translates into changed behaviors and policies that support meeting student food needs. However, the support of teachers, principals, and

school board members was garnered through the process, and rich conversations took place amongst the student groups.

The students involved in this study received benefit beyond having a platform to share their voices. Many of the students had never previously considered the factors surrounding food security or even heard the meaning of that term. Through this process, students not only gained a wealth of knowledge related to their food environment, but also a desire to look further into their communities and conceptualize both the problem of food inequity and solutions to address it. Furthermore, this study introduced both students and their teachers to photovoice and the potential it has to serve as a change agent, bringing awareness to issues, and a means of inquiry-based learning.

The everyday realities of hunger have stemmed from an intricate web of physical and social barriers and influences. While students have identified, detailed, and helped to categorize these factors into separate groups, it has become apparent that none are mutually exclusive. Instead they interact and weave together like the crafting of a basket. You cannot hope to address one concern without at least considering another. Future research should be mindful of the intricacies and intersectionality between these themes, particularly when considering barriers to equity.

Limitations

Several limitations were revealed through the conduct of this study. Firstly, dealing with younger demographics and underserved populations of participants posed greater ethical deliberations and precautions that were accounted for in the IRB research approval. Further ethical issues and obstacles arose dealing with the need to convey the purpose of the study clearly, without deception to both parents/guardians and

participants. Anonymity of participants was key throughout this process, and extra precautions were required to ensure secrecy among youth.

As this project and subsequent study took place over a short amount of time, there were also limitations in the form of building rapport with student participants. Very little time was allotted to build a rapport with students or a precedent for the project. This made it difficult at first to keep every student engaged and motivated the researcher to rethink aspects of the process, such as small group discussions, which were easily distracting. This may have also been due to the large volume of student participants. In similar cases, research studies utilized as little as six youth students to conduct their study. While rich data emerged from the multitude of perspectives shared through this study, it may have proved more beneficial to focus on a smaller sample size. However, once the project was underway and students were building collages of their selected photos, the attitude of the class as a whole was more positive, and it was much easier to keep student engaged.

Budget Limitations

Traditionally, photos within photovoice research are collected through participant use of disposable cameras provided for by the researcher; however, within this study photos were collected in a multitude of ways and financial restrictions were such that a myriad of methods of photo collection occurred. The researcher provided six disposable cameras to be checked out by students in the classroom. In addition, many students had the use of cameras built into their phones, which they used for photo collection. Student's who opted out of either of these photo-taking methods had the option to either draw photos or procure them through an online search. Not only did this aid in traversing the

budgetary limitation of the study, it also allowed more power and choice to be placed in the hands of the participating youth.

Logistical Limitations

The primary difficulty in research collection arose while navigating the logistics of implementation within a middle school classroom. Through this study it became apparent that students were limited by environmental factors, which resulted in the difficulty, and at times inability, for them to capture their perspectives through original photography. After the introduction to the project where the initial photovoice instructions and prompts were presented, students had one week to collect photos from their environment. This reaped little result and a second introductory meeting and lesson was needed, allowing students fewer barriers in collecting photos. In this session, other methods such as drawing and finding photos were included in the process. It became important throughout data collection to limit as many outside factors as possible to allow students to represent the full range of their perspectives and artistry. Students were given the opportunity to look up and save photos of the things they did not have access to taking pictures of.

Summary

It is clear through the research of this study that youth voices, and especially those of marginalized groups, need to be brought to the table in discussions of social inequity. Simply addressing the physical needs of these individuals is not enough. Instead, meaningful and humanizing conversations need to be had between community member and policy makers. The methods outlined in this study are shown to be positive initiators of such conversations, by both empowering participants and illuminating their lived

experiences to provide a more complete picture of community issues. The young participants of this study showed great introspection and were able to thoughtfully convey their narratives in a way that may influence change. In this regard, they have taken the process one step further by reaching out to chairs and committee members of the Kentucky Hunger Initiative to share their photos and stories. By doing so, the efforts of this research, and the impact on these students, goes far beyond the initial intention of this study. While only time will tell if this initial encounter, and continued conversations, translates into lasting change in community food security, it is evident youth voices are needed and valuable.

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APPENDIX A: ASSENT FORMS

IRB Approved 17-0576
Valid: 1/5/18-1/4/19

ASSENT FORM

YOUTH PERSPECTIVES ON COMMUNITY FOOD JUSTICE AND NUTRITION

You are invited to take part in a research study conducted by Ms. Tori Summey, a student, guided by Associate Professor Dr. Stacy Vincent from the University of Kentucky. You are invited because of your participation in an agricultural science course.

If you agree to be in the study, you will be asked to take photos over the course of a week using a disposable camera that is provided to you by the research team. You will be asked to answer questions related to these photographs and topics such as health, food justice, and nutrition. Any answers you provide, as well as any photos that are taken, will remain confidential.

Your family will know that you are in the study. If anyone else is given information about you, they will not know your name. A number or initials will be used instead of your name.

If something makes you feel bad while you are in the study, please tell Ms. Tori Summey or Dr. Stacy Vincent. If you decide at any time you do not want to finish the study, you may stop.

You can ask Ms. Tori Summey and Dr. Stacy Vincent questions at any time about anything related to your participation in the study. You can also ask your parent any questions you might have about the study.

Signing this paper means that you have read this or had it read to you, and that you want to be in the study. If you do not want to be in the study, do not sign the paper. Being in the study is up to you, and no one will be mad if you do not sign this paper or even if you change your mind later. You agree that you have been told about this study and why it is being done and what to do.

Check the activities in which you are willing to participate.

_____ I agree to participate in the above outline's community activities

_____ I agree to participate in follow up interviews and classroom observations.

Signature of Person Agreeing to be in the Study

Date

Name of [Authorized] Person Obtaining Informed Assent

Date

APPENDIX B: CONSENT FORMS

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Consent to Participate in a Research Study

YOUTH PERSPECTIVES ON COMMUNITY FOOD JUSTICE AND NUTRITION

WHY ARE YOU BEING INVITED TO TAKE PART IN THIS RESEARCH?

Your child is invited to take part in a research study regarding youth perceptions of the food system, and more specifically, the perceptions of youth toward food justice and nutrition and its impact in their lives and neighborhoods.

If your child takes part in this study, he or she will be one of about 40 students to do so.

WHO IS DOING THE STUDY?

The person in charge of this study is Ms. Tori Summey, a student of the University of Kentucky's Department of Community and Leadership Development. Dr. Stacy Vincent, an Associate Professor at the University of Kentucky, is guiding her in this research. There may be other people on the research team assisting at different times during the study.

WHAT IS THE PURPOSE OF THIS STUDY?

The purpose of this study is to gain a clearer picture of young students' perceptions of local food systems and topics such as food justice and nutrition. By doing this study, we hope to explore how middle-school aged students define their local food environments and create solutions to meeting the food needs of their community. The research collected will help to better understand the food narratives of youth, as well as methods for which multidisciplinary and participatory research can better utilize student voice.

WHERE IS THE STUDY GOING TO TAKE PLACE AND HOW LONG WILL IT LAST?

The research procedures will be conducted in conjunction with four consecutive 45-minute lessons in your child's regularly scheduled agricultural science class. The total amount of time your student will be asked to volunteer for this study is 3 hours and 20 minutes over the course of one week.

WHAT WILL YOUR CHILD BE ASKED TO DO?

The study will consist of two parts. Participating middle school students will have the opportunity to discuss food justice topics such as accessibility and affordability of nutritious food along with what it means to be healthy and what healthy foods looks like. Students will then be able to share their own food perceptions by taking part in a Photovoice activity. The activity will allow students a one-week time frame to capture photos that represent their perceptions toward the food system, followed by a discussion on the photos they captured and their opinions toward related food justice and nutrition topics.

WHAT ARE THE POSSIBLE RISKS AND DISCOMFORTS?

To the best of our knowledge, the things your child will be doing have no more risk of harm than what would be experienced in everyday life.

WILL YOU BENEFIT FROM TAKING PART IN THIS STUDY?

University of Kentucky
Revised 9/28/17

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Nonmedical IRB ICF Template

Your child will not get any personal benefit from taking part in this study. However, your willingness to have your child take part may help society as a whole better understand this research topic in the future.

DO YOU HAVE TO TAKE PART IN THE STUDY?

If you decide to have your child take part in the study, it should be because you desire for them to volunteer. Your child will not lose any benefits or rights they would normally have if they chose not to volunteer. You may choose to have your child stop their participation at any time during the study. Regardless, you and your child will retain the benefits and rights you had before volunteering.

WHAT WILL IT COST YOUR CHILD TO PARTICIPATE?

There are no costs associated with taking part in the study.

WILL YOUR CHILD RECEIVE ANY REWARDS FOR TAKING PART IN THIS STUDY?

Your child will not receive any rewards or payment for taking part in the study.

WHO WILL SEE THE INFORMATION THAT YOUR CHILD GIVES?

We will make every effort to keep confidential all research records that identify you to the extent allowed by law.

Information gathered from your child will be combined with information from other students taking part in the study. When we write about the study to share it with other researchers, we will write about the combined information we have gathered. Your child will not be personally identified in these written materials. We may publish the results of this study; however, we will keep your child's name and other identifying information private.

We will make every effort to prevent anyone who is not on the research team from knowing that you gave us information, or what that information is. Once data is recorded, all identifiers will be removed to ensure your child's confidentiality, even amongst our own research team.

We will keep private all research records that identify your child to the extent allowed by law. However, there are some circumstances in which we may have to show your child's information to other people. For instance, we may be required to show information which identifies you to people who need to be sure we have done the research correctly; these would be people from such organizations as the University of Kentucky.

CAN YOUR CHILD TAKING PART IN THE STUDY END EARLY?

If you decide to have your child take part in the study you still have the right to decide at any time that you no longer want them to continue. Your child will not be treated differently if you decide to have them stop taking part in the study.

WHAT ELSE DO YOU NEED TO KNOW?

There is a possibility that the data collected from your child may be shared with other investigators in the future. If that is the case the data will not contain information that can identify your child unless you give your consent or the UK Institutional Review Board (IRB) approves the research. The IRB is a committee that reviews ethical issues, according to federal, state and local regulations on research with human subjects, to make sure the study complies with these before approval of a research study is issued.

WHAT IF YOU HAVE QUESTIONS, SUGGESTIONS, CONCERNS, OR COMPLAINTS?

Before you decide whether to accept this invitation for your child to take part in the study, please ask any questions that might come to mind now. Later, if you have questions, suggestions, concerns, or complaints about the study, you may contact the student investigator, Tori Summey at (602) 708-2366 or

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tori.summey@uky.edu. You may also contact her advisor through this research, Dr. Stacy Vincent at stacy.vincent@uky.edu. If you have any questions about your rights as a volunteer in this research, contact the staff in the Office of Research Integrity at the University of Kentucky between the business hours of 8am and 5pm EST, Mon-Fri. at 859-257-9428 or toll free at 1-866-400-9428.

Signature of person agreeing to take part in the study

Date

VITA

1. Place of birth: Chandler, AZ
2. Educational Institutions:
 - Oklahoma State University, 2016
 - College of Agricultural Science and Natural Resources
 - B.S. Agricultural Economics
 - University of Kentucky, 2018
 - College of Agriculture, Food, and Environment
 - M.S. Community and Leadership Development (expected)
3. Tori Elizabeth Summey