

Towards culturally relevant 4-H agriculture programming for urban youth: Identifying
potential design principles and outcomes

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ABSTRACT (Professional)

Historical context of African Americans within agriculture has produced negative perceptions of agriculture within African American populations today. Furthermore, many minority youth who reside in urban areas are disconnected from agriculture because of lack of access, limiting contact to food production systems to consumption. In rural areas that are dedicated to agriculture and farming, youth can witness agricultural principles daily and many of them have lived experiences with agriculture. Non-formal educational programming such as 4-H is beneficial for exposing and including urban youth into agricultural educational programming. 4-H programs can connect with schools, after school programs and other youth organizations in urban areas to reach youth but the needs of this audience must be attended to. The purpose of this qualitative study was to understand design principles that can be beneficial in increasing urban youth participation in 4-H agricultural programming while also utilizing culturally relevant pedagogy facets within 4-H programming. Seven 4-H agents were interviewed with individual and focus group interviews. Descriptive coding, in-vivo coding, and value coding methods were utilized during first cycle coding. Literature from Gloria Ladson-Billing's theory of culturally relevant pedagogy (CRP) was utilized to frame the research questions, a priori table, and interview guides in the study. Findings from the study indicated that CRP facets were emerging in 4-H programming and within 4-H agents. Although, CRP facets are emergent, design principles for 4-H programs must be developed to ensure issues such as equity, diversity, and inclusion is represented throughout all 4-H programs.

Abstract (Public)

Utilizing 4-H programming to connect urban youth to agriculture education is an important concern for 4-H agents. Urban youth are disconnected from agriculture unlike rural youth. Agricultural educational programs can be embedded into urban communities to expose youth to agriculture. Non-formal educational programs such as 4-H are intended to reach all youth, providing youth opportunities to participate in STEM, robotics, agricultural, and sport activities. Although 4-H is a national program it does not have strong presence in many urban communities. Design principles of 4-H programming can be challenged and examined to assess and develop strategies that are useful in engaging urban youth in programming. Acknowledging 4-H programs as non-traditional for urban youth because of the historical context of oppression between African Americans and agriculture is important for change. Educational spaces where youth cultures are considered when developing programming are important. Culturally relevant pedagogy is a framework that focuses on being culturally relevant in educational spaces by considering how teachers interact with students. The framework challenges teacher's ability to consider academic success, youth culture, and critical consciousness within instruction. This framework is important for youth being at the center of educational efforts for their success. Agents participated in two interviews one individual and one focus group. The interviews focused on agent experiences and opinions about 4-H programming efforts to successfully engage urban youth, agent strategies, and success and failures of processes within 4-H programming. Findings indicated that facets of CRP are emergent in 4-H programming, and agents discussed new design principles for successful engagement of urban youth.

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Chapter One: Introduction

Background and Setting

The history of 4-H programs is deeply rooted in agriculture with a purpose of serving rural areas, which did not reflect experiences of urban youth (Flanagan, Thompson, & Van Horn, 1999). For the context of this study, *rural areas* are defined as areas with low population density and large amounts of undeveloped land (National Geographic). Although the mission of the program is to support and develop all youth (Turner, 2015); the inclusion of urban populations into 4-H programs was not an initial mission of the program. To increase participation of youth and to reach youth from diverse races and cultures, 4-H programs have transitioned into the public-school system (Flanagan, Thompson, & Van Horn, 1999). Traditional agricultural activities do not connect or reflect with the experiences of urban youth (Flanagan, Thompson, & Van Horn, 1999). To adapt to the inclusion of urban youth in 4-H programs, questions of program principles and appeal to the intended audience must be addressed (Flanagan, Thompson, & Van Horn, 1999). Minority groups make up most of the population in urban areas, while whites are the majority in suburban and rural areas (Brown, Cohn, Fry, Ingielnik, & Horowitz Parker, 2018). The term *minority* is used to define groups of people characterized by their ethnicity or race e.g., African- Americans, Hispanics, Native Americans in the United States. For the context of this study, *urban areas* are defined as towns, cities, or suburbs with high density of human structures such as homes, commercial buildings, and roadways (National Geographic). It is imperative that youth from minority groups in urban areas be included into 4-H programs. Studies have shown that 4-H has positive impacts on students and members are twice as likely to go to college than those who have never participated in the program (Turner, 2015). Through

programs like 4-H, youth can develop leadership and citizenship skills, and all youth should have the opportunity to benefit from the principles of 4-H (Turner, 2015). By creating a space for the inclusion of 4-H curriculum into urban classrooms that meets their needs, youth will have the opportunity to build an awareness of agriculture principles while developing lifelong leadership skills. The target audience for this study was urban African American youth, although African Americans are not the only youth that make up urban populations. For this study, African American youth was the intended audience because this group has been historically disenfranchised and marginalized in the agriculture community.

Historical Context of African Americans in Agriculture

People of African descent have been involved in agriculture since the establishment of the trans-Atlantic slave trade in the early 1500's. During the beginning of the slave trade Portuguese men acquired slaves for countries such as Brazil and the Caribbean (Thomas, 1997). As slavery expanded Africans were forced into slavery into the new world. Slavery in the Americas resulted in a surplus of agriculture production that aided in the expansion of the United States. Many scholars have debated about the reason for race-based slavery in the United States and some argue that economics were the reason. Scholar Betty Wood argues that in the early 1620's and 1630's in Virginia Dutch labor was preferred over African labor but because of high African mortality rates, African ensured profitable markets (Hornsby, 2005). Africans unlike Europeans were resistant to diseases that Europeans carried such as Malaria (Hornsby, 2005). In the Virginia and Carolina swamps where American slavery began, malaria was common and caused fatality for many Europeans (Hornsby, 2005). In Virginia once tobacco became a profitable crop the number of African slave labor that was imported to the America colonies increased.

Africans were imported to the Americas during the seventeenth and eighteenth centuries. In the early days of the forced movement to the new world, African slaves were brought to southern coast of America to work on tobacco and rice plantations (Onion, n.d). In the late 1700's the invention of the cotton gin produced another profitable crop that African slaves were forced to produce (Onion, n.d). The production of cotton throughout the southern states caused the enslaved population to triple to a population of 4million in the 1860's, it is reported that nearly 2 million slaves were living in the south (Onion, n.d). African Americans have been involved within the agricultural system in America for over 300 years (Royce, 1993; Schor, 1992; Wimberley, Morris, & Bachtel, 1992; Zabawa, 1989).

George Washington Carver and the Origin of Cooperative Extension Services

Dr. George Washington Carver was an African American agricultural expert, and educator who taught farmers about cultivation methods that promote conservation and growth of protein rich crops (The Legacy of George, n.d.). Dr. Carver studied botany and discovered many ways to utilize agricultural products such as peanuts and sweet potatoes, he created more than 300 uses for both products (The Legacy of George, n.d.). After receiving his Master of Agriculture degree in 1896 Dr. Carver moved to Alabama to support Booker T. Washington's college Tuskegee Institute ((The Legacy of George, n.d.) Dr. Carver was named the Agriculture Director at the college where he conducted research, and educational outreach to farmers both white and black (Sandborn, 2019).

During Dr. Carver's time in Alabama, he achieved great success providing education to the community through measure of outreach. Dr. Carver taught farmers techniques such as crop rotation, how to manage livestock, he also taught farmers about nutrition for themselves (Sandborn, 2019). In 1906 Carver created the Jesup Agricultural Wagon also known as the

"Tuskegee Movable School of Agriculture" to bring seminars directly to farmers (Wooten, 2020). The Jesup wagon was a horse carriage that contained equipment needed to teach farmers such as plants, seeds, and fertilizers. As an educator at Tuskegee Dr. Carver taught Thomas Monroe Campbell an African American who would become the first extension agent in the cooperative extension system (Wooten, 2020). Campbell began his career as an extension agent after graduating Tuskegee Institute he was given the role of delivering education to black farmers through the "moveable school".

Cooperative Extension System

Cooperative extension system services were created by scholars who wanted to improve agricultural techniques as well as deliver agricultural information within agricultural communities. Seaman Knapp is known as the leader of the demonstration movement, this same movement grounded the foundation of cooperative extension services (Comer, 2006). Knapp began his demonstration services at Iowa State College of Agriculture he believed that farmers would be more willing to adopt new farming practices if the practices are demonstrated on their own farms instead of observed in public (Comer, 2006). Knapp's efforts to create demonstration farms resulted in the Hatch Act of 1887. The act established federal funds for state colleges to create agricultural experimental stations where agricultural research can be conducted for the advancement of the agriculture industry.

Challenges within Cooperative Extension System at the 1890 Land Grant Institutions

1890 land-grant institutions were developed as a result of the second Morrill Act that granted funding to southern states for the establishment of institutions where blacks can be trained in agriculture, military tactics, and liberal arts (Comer, 2006). 1890 land grants were developed after the establishment of 1862 land-grants which were awarded to states for the

construction of colleges for whites. The Smith-Lever act of 1914 formally established the cooperative extension system, the CES system is created by the USDA and operates through land-grant universities. 1890 institutions held the responsibility to provide educational outreach services to minority audiences through cooperative extension services. As a result of the Smith-Lever act 1862 and 1890 land-grant universities were expected to cooperate to extend services to communities. 1890 extension services faced challenges and blacks were disadvantaged by the cooperative extension system by 1862 institution receiving all control of funding leaving little to no resources for 1890 institutions and black communities that were to be serviced through CES (Comer, 2006). Inequity and unequal displacement of funding between 1862 and 1890 institutions has been prominent throughout their history. In 1971 the USDA accepted a proposal to provide black colleges with \$12.6 for research and extension but appropriation of funds showed that 1862's were still in charge of resources (Comer, 2006). The relationship between African American and USDA extension programs has been historically strained because of the negative experiences with USDA that blacks have experienced such as not receiving equitable resources.

Black Farmers in the United States

The number of black farmers increased in the United States in the 1920's to 925, 710 (United States Commission on Civil Rights, 1982). Although blacks were able to own 15 million acres of land by the 1920's (Banks, 1986), discriminatory and racism practices have led to the decline of blacks within agriculture (Brown, 2018). Black farmers lost land due to the government prohibiting black farmer participation in government programs (Gilbert et al., 2002). Tyler and Moore (2013) have argued that the lack of financial assistance from the government has caused unsuccess within black farming communities. Black farmers were often denied loans

solely based on race resulting unpaid mortgage and farm taxes which caused foreclosure of their land (Owens, 2016). Non-participation of black farmers in USDA programming is a direct result of systematic discrimination by the USDA (Farquhar & Wing, 2008; Gilbert et al., 2002; Tajik & Minkler, 2007). In 1997 the number of African American farmers decreased to 18,451 (USDA, 1997). In past years the number of black farmers has increased, and in 2012, there were 44,629, which is a slight increase since 2007 (USDA National Agricultural Statistics Service report, 2012). As of 2017 there has been a 5% increase of black farmers with a total population of 48,697 which makes up 1.4% of the 3.2 million produces in the United States (USDA Census, 2017). In 2017 black farmers own 4.7 million acres of land and sold \$1.4 million in agriculture products (USDA Census, 2017). Black farmers were denied their rights for years by the USDA, but justice was delivered during the Pigford versus Glickman class action lawsuit that challenged the USDA's discrimination and misallocation of funds and assistance between 1983 and 1997 (Christian et al., 2013, p.4). As a result, the government agreed to \$2.5 million in damages to 20,000 farmers (Christian et al., 2013, p.4). Unfortunately, since May 2002, only 40% to 60% of black farmers who have filed for the award have received it (Cowan & Feder, 2009). Historical oppression and discrimination of black farmers through agriculture has resulted in a decline in the number of black Americans who participate in farming and pass down generational knowledge of agriculture.

4-H Thriving Model

According to the 4-H Program Leaders' Working Group task force the 4-H thriving model outlines the process of positive youth development in 4-H programs by connecting youth to high quality program settings that promote development. Developmental context is the basis and foundation for the 4-H thriving model at this stage youth are provided a place to belong,

grow and explore their interests. 4-H programs offer developmental context such as relationships that express care, challenge growth, and share power (4-H PLWG). Youth thriving through social, emotional, and cognitive learning is the second stage of the 4-H thriving model. The youth thriving stages includes seven indicators of thriving: openness to challenge and discover, growth mindset, hopeful purpose, pro-social orientation, transcendent awareness, positive emotionality, and self-regulation through goal setting and management (4-H PLWG). Youth developmental outcomes are a result of stages 1 and 2 of the 4-H thriving model. Developmental outcomes are described as: academic motivation and success, social competence, high personal standards, connection with others, personal responsibility, and contribution to others through leadership and civic engagement. Youth who achieve development of the above outcomes achieve skills at the last stage of the 4-H thriving model. Long-term outcomes of positive youth development are: vocational or academic success, civic engagement, employability and economic stability and happiness and well-being (4-H PLWG).

Diversity, Equity, and Inclusion (DEI) Efforts in 4-H

Recently 4-H has implemented strategies to move towards programming that satisfies diversity, inclusion, and equity. 4-H has realized how despite great efforts the programming does not reflect population demographics and lacks diversity and inclusion it needs to reach wider audiences (Fields, 2020). To address the economic and resource disparities amongst youth populations, 4-H has developed an initiative to grow the programming. The Extension Committee on Organization and Policy (ECOP) released the following statement in 2019 to address organizational changes that will lead to a more diverse and equitable 4-H programming.

4-H, the nation's largest youth development organization, will embrace the rich diversity of youth, families and communities that comprise our nation. We will grow our organization in ways which leverage that diversity to improve the economic,

environmental, and social conditions in which people live. At a time when disparities to resources and opportunities are growing for families across the country, the need for 4-H high quality positive youth development has never been greater. Cooperative Extension and 4-H have an opportunity to close the gap in wellbeing and economic mobility as we undertake our bold goal to engage 10 million youth reflecting the diversity of the communities, we serve by 2025. To achieve the growth and impact to which our system is committed, Extension must build and sustain community partnerships to offer 4-H in response to community needs, and re-examine how we hire and support staff, recruit and support volunteers, and fund and sustain programs. Uniting toward an inclusive, diverse, and equitable 4-H is the fuel we need to increase access for all youth, families, and communities—in every town, every city, and every corner of America. (ECOP 4-H, 2019)

To reach these goals 4-H programming should be critically developed to reflect cultures and traditions of the diversified populations of youth that are served. The achievement of this framework will require partnerships and a systemic review of 4-H programming currently.

Agricultural Literacy Education

Agricultural literacy education is important for developing youth who can address real world issues that they may face. In 2019, it was reported that only 10.9 percent of the U.S population are employed in agriculture, food and, related industries (ers.usda.gov). To address growing agriculture needs and low employment in the agriculture sector, agricultural literacy for all youth is important (Borck, 2010). Educators have also supported integration of agricultural education into their classrooms noting that it allows for experiential learning amongst students (Dewey, 1938; Mabie & Baker, 1996). Agricultural education is delivered through three interconnected components: 1) Classroom or laboratory instruction, 2) Experiential learning — Learning experiences that usually take place outside of the classroom, supervised by the agriculture instructor and 3) Leadership education — delivered through student organizations such as the National FFA Organization and 4-H. (National Association of Agricultural Educators, 2016). Trexler et al. note that students' understanding of food and food production is

linked to their respect for nutrition, the environment and agriculture (Trexler, Johnson, & Heinze, 2000). Youth in rural areas are often aware of agriculture and may even experience agriculture daily while youth in urban areas often do not share a similar experience. Chawla (2001, 2006) believes that agricultural education in urban areas is a mean by which youth recognize how nature is connected to their lives in the city. In a study of suburban, urban, and rural programs that engaged youth in agriculture through the environment researchers found the programs provided experiences that developed cultural and interpersonal competence, self-esteem, sense of purpose, and other youth developmental assets or qualities that help youth succeed in school and civic life (Schusler & Krasny, 2010; Benson et al., 2011; Delia & Krasny 2019). Incorporating agricultural education into urban classrooms can provide benefits for students.

National Urban Extension Leaders

The National Urban Extension Leaders began in 2013 by a group of urban extension educators who are passionate about advancing the urban extension activities by being relevant locally, responsive statewide, and nationally recognized. The NUEL has created a network for extension educators that exist in 23 states. The cooperative extension system traditionally offered services to the community to enhance agriculture and the process of farming, but today's focus is shifted towards urbanization and providing services to urban communities. Urban extension is a vital part of CES that was developed to support urban communities in addressing topics such as community development, poverty, crime, workforce preparedness, and more (Urban Extension). Extension programs offer urban communities' opportunities to engage in urban farming, community gardening, urban economic development, and overall youth development. The

mission of the urban extension system is to provide scientific based information to local groups who share goals of advancing urban communities. Partnering with local groups ensures that the groups are receiving support from stakeholders who value the mission and who are credible in their own work. The NUEL has identified five focus areas that comprise the efforts of urban extension leader efforts. Urban extension system has done extensive work in the five focus areas: strengthen communities, protect the environment, improve our health, enrich youth, feed the future. The NUEL has also hosted a Dialogue on Racism in 2020 to address awareness of issues of racism that persists throughout the United States. Organizations such as the NUEL are needed within systems such as cooperative extension to ensure that populations such as urban communities are included in opportunity of advancement.

Key Terminology

Culturally Relevant Pedagogy can be described as an approach for engaging learners whose experiences and cultures have been traditionally marginalized in education (Ladson-Billings, 1995). The three main facets of culturally relevant pedagogy are academic success, cultural competence, and critical consciousness with these facets it is the goal of educators to develop students who are socially, emotionally, and politically empowered (Ladson-Billings, 1995). *Design principles* are the frameworks, paradigms, and guidelines that are utilized to create educational curricula or programming. Van den Akker, states that design principles refer to the characteristics of an educational intervention and how the intervention should be developed (1999). He also states that design principles reflect scholarly or scientific aspirations towards production of knowledge (Van den Akker, 1999). The outcomes of the educational intervention are also dependent upon the design principles that are outlined. Culturally relevant pedagogy is a

design principle for incorporating marginalized groups, cultures, and experiences into education.

Based on the definition created by Frick, Martin, Kahler, and Miller (1991) outlined in the

National Agricultural Literacy Outcomes *agricultural literacy* can be defined as:

possessing knowledge and understanding of our food and fiber system. An individual possessing such knowledge would be able to synthesize, and analyze, and communicate basic information about agriculture. Basic agricultural information includes the production of plant and animal products, the economic impact of agriculture, its societal significance, agriculture's important relationship with natural resources and the environment, the marketing of agricultural products, the processing of agricultural products, public agricultural policies, the global significance of agriculture, and the distribution of agricultural products. (p. 52)

In the context of this study, *agricultural education* is education that supports agricultural literacy. Through agricultural education, students learn a variety of skills in different subjects such as science, math, leadership management and technology (NAAE). When using the terminology *4-H programming* the term refers to the program on varying levels, the holistic programming as an entire entity is considered as well as the varying programs that are offered through the 4-H institution. Programming describes the curriculum, design principles that drives the programming, learning outcomes, and delivery modes of the specific program. Programming refers to every aspect of the program design.

Statement of the Problem

African Americans represent an underserved population in agricultural education and technical education (Croom, Moore & Armbruster, 2005). Further, past research has shown that young people raised in urban areas have little to no experience with agriculture and often lack knowledge of environmental issues that impact food and fiber production (Brickell, 1996). Minority populations make up the vast majority of urban areas while whites are the majority in 90% of suburban and small metro counties and 89% of rural counties (Brown et al., 2018).

Orthel found that minority students have negative perceptions of agriculture, often equating agriculture with farming, which disinterests minorities for historic and other reasons (1989). Exposing minority students to agriculture and related sciences can eliminate the disconnection between minority youth and agriculture. Educational programs such as 4-H have developed in response to a need for improved agriculture education (Borden et al., 2014). Grassroots 4-H programs began in agriculture in rural America reflecting experiences of youth who have experience on farms (Flanagan et al., 1999). More recently, as 4-H programs have shifted their focus to encourage diverse groups of youth to participate in the programs, school-based 4-H programming has been effective in helping to reach diverse student populations (Flanagan et al. 1999). To make improvements towards connecting minority youth in urban spaces to agriculture and related sciences potential for incorporating agriculture education into urban classroom spaces must be explored.

Purpose of the Study

The purpose of this study was to explore 4-H agents' perceptions of 4-H programming and established agricultural literacy outcomes to identify potential design principles for culturally relevant agricultural education in urban classrooms, after school programs, and 4-H programs. From this study, the hope is that new 4-H agricultural programming in urban school settings is developed such that agricultural literacy outcomes for students are addressed in a way that is responsive to the new ECOP diversity, equity, and inclusion goals for 4-H (Fields, 2020).

Research Questions

1. In what ways, if any, do participants perceive 4-H programming as supportive of youth academic success, developing cultural competence within youth, and developing critical consciousness within youth?

2. In what ways, if any, do participants perceive agricultural education as supportive of youth academic success, developing cultural competence within youth, and developing critical consciousness within youth?

3. From the perspective of participants, what should design principles for urban 4-H agriculture programming include to ensure that it is supportive of youth academic success, developing cultural competence within youth, and developing critical consciousness within youth?

Chapter Two: Literature Review

This chapter covers topics that detail the agricultural experience for minority groups such as African Americans and Hispanic groups in the United States. The chapter emphasizes how those from minority groups have different agricultural experiences than those from majority groups such as White populations. Efforts to expand agricultural education through 4-H programming and curriculum inside of the classroom will also be highlighted in this chapter. It is important to note that stakeholders are making strides to expand agricultural education into non-traditional areas such as urban communities. The perspectives of educators and urban youth in relation to agricultural education will also be outlined in the chapter. Culturally relevant pedagogy will be introduced as the theoretical framework that supports the lens from which this research is done.

Disconnect of African Americans to Agriculture

It is pleasant to know that in color, form, and features we are related to the first successful tillers of the soil; to the people who taught the world agriculture--Fredrick Douglas 1873

The historical prominent relationship of African Americans to agriculture in the United States has been working in the fields for the benefit of the industry (Bowens, 2015). African Americans have deep roots in agriculture which date back centuries before colonization. White (2019) argues that colonizers were tradespeople who had little experience farming, thus they depended on the knowledge of the people they enslaved to survive. Enslaved Africans supported the development of the agriculture industry by producing many cash crops such as coffee, sugar, and rice (White, 2019). Although minorities have strong historical roots in agriculture, the linkage of agriculture and oppression as well as migration to northern states has caused a

disconnection amongst the two. Historical context of oppression, adversity, and discrimination associated with racism due to slavery has caused African Americans to have a negative stigma towards agriculture. For African Americans agriculture represents the displacement and decline of African Americans people, culture, and overall liberty. According to Dr. Annie King parents tell their children stories about the adversities associated with farming instead of viewing it as an honorable profession as their ancestors had (Morgan, 2000). African Americans of today are far removed from agriculture. Past research has shown that out of the 5 percent of work force farmers only 1 percent of the farmers are black (Morgan, 2000). Efforts to include representations of minority populations into agriculture has been limited although there are minority figures who have made great contributions within the field of agriculture. George Washington Carver is a prominent agriculture scientist who can be credited for his invention of peanut butter, but he is never represented on a jar of peanut butter (Morgan, 2000). However, minority icons such as Michael Jordan have been represented on cereal boxes. According to Walker (2000) lack of representation of minorities such as George Washington Carver within agriculture but glorification of images such as Michael Jordan perpetuates the stigma that this group of people are efficient in sports but are not good scientists.

Minority Youth Perceptions of Agriculture

Research conducted by Larke, and Talbert (1995) has shown that minority students unlike non-minority students have negative perceptions about the traditional aspect of agriculture. Minority youth those from African American and Hispanic ethnic groups often have less experience with agriculture than their counterparts. Henry (2014) et. al examined the perspective of educators in an urban charter school to address challenges to teaching agriculture education in the space. This study suggests that minority youths lack of awareness and

experience with agriculture has an impact on their negative perceptions. Participants in the study noted:

"When I ask them so what's the agriculture that we have around the school, you know there is a nursery just on the other side of the parking lot behind the school, and they didn't consider that as agriculture, but landscaping is a huge industry in agriculture, so I mean they are just unaware of what agriculture is" (pg. 95)

Wiley et. al (1997) made claims that "for historic and other reasons, the consumption of food is the primary contact that many minorities have with the food and agricultural sciences" (pg. 21). Morgan (2000,) agrees stating that "a big part of the problem is that the professions of agricultural education and food production often are stigmatized in the minds of students, particularly African American students" and African Americans are unaware of the "myriad options available in the field of agriculture" (para 8). To change minority youth perception of agriculture youth must be aware and involved in agriculture. Fishbein and Ajezen (1975) developed the theory of planned behavior, they theorized that students' and parents' attitude and beliefs are constructed by their personal experiences, knowledge, and observations; Osborne et. al. (2000) applied this theory to the context of agriculture. Lipsett (1962) agrees stating that peoples decision making is influenced, ".....based on the factors of social class membership, home influences, school, community, pressure groups, and role perceptions" (39). The disconnection of parents with agriculture is often reflected upon their children. Haynes et al. (2015) found in their study that pressure from parents of minority youth from Hispanic and African American populations to pursue traditional careers is a barrier to students choosing agricultural careers. Hayne et. al (2015) also found that minority students face barriers dealing with racial, gender, ethnic, issues, lack of confidence, lack of support from friends and family, and lack of job opportunities that deter them from pursuing agriculture careers.

Agricultural Education through 4-H

4-H programming provides youth with opportunities that expose them to agricultural principles and agricultural education. It is important to note that not all 4-H curriculums are agricultural education based. Curriculums such as Chick Quest has been utilized in urban elementary schools to teach students STEM skills that meet science standards while engaging student in experimental science curriculum (Horton, Krieger, & Halassa, 2013). The goals of the Chick Quest curriculum are to: meet state standards, teach 21st century and STEM Skills, decrease anxiety about teaching science, increase the connection between students and commercial agricultural production, and scaffold learning on familiar experience. Previous research where Chick Quest curriculum was utilized in Ohio elementary schools produced valuable results that suggest that 4-H curriculum can bridge the gap between rural and urban settings in terms of agricultural education. Chick Quest is a curriculum that allows for science to come to life in the classrooms, urban students may never experience farms but with Chick Quest they can observe chicks hatching in their very own classroom (Horton, Krieger, & Halassa, 2013). Cattle Kids programming is also offered through 4-H. This programming was created to provide youth who have little access to livestock with a hand- on agricultural experience (Cummins, Nash, 2014). The outcomes of the programs "were to help youth understand the cattle industry; gain responsibility through caring for an animal on a daily basis; learn proper livestock management skills, such as health care, nutritional needs, and environmental needs of young calves; learn basic record keeping and communication skills; and to learn basic cattle management skills without a large financial investment" (Cummins, & Nash, 2014). The results of the study showed that youth were excited about their experience, and they were also able to develop valuable life skills (Cummins, & Nash, 2014).

Agricultural Education in the Classroom

Agricultural education in urban classrooms is gaining a lot of attention. Educators recognize the importance of teaching students how to be critical thinkers and problem solve real world issues. Stakeholder and educators are supportive for agricultural education in urban areas but face many challenges implementing agricultural education for many reasons. In a research study conducted by Henry et al., educators of an urban high school where agricultural education is taught were interviewed. The researchers found that the inclusion of agricultural education into school curriculum was positively supported by administrators and educators (Henry, Talbert, & Morris, 2014). Participants from the study reported that the agricultural education gives students different ways of looking at science while breaking student stereotypes of agriculture (Henry, Talbert, & Morris, 2014). Participants from the study also reported the challenges of teaching agricultural education. Results of the study implicated those teachers approach to teaching agriculture in urban classrooms varies from teaching in rural areas, which presents a challenge because agriculture in urban environments is not as prevalent or prominent (Henry, Talbert, & Morris, 2014).

National Agricultural Literacy Outcomes

The national agricultural literacy outcomes were developed by a group of researchers, practitioners, and government officials. The outcomes were developed to support agriculture education, as stated in the NALO foreword, "to continue to meet the needs of the U.S. population and address growing global needs, agriculture needs to be understood and valued by all" (Spielmaker, 2013, p.1). To support the NALO a definition for an agricultural literate person was defined as "a person who understands and can communicate the source and value of agriculture

as it affects our quality of life” (National Agriculture in the Classroom, 2014). Since the NALO outline benchmarks for agricultural literacy, youth who receive education through this framework will learn about agricultural concepts. The NALO are organized under five themes by grade level benchmark, which align with national education standards: agriculture and the environment, plants and animals for food, fiber & energy, food, health, and lifestyle science, technology, engineering & math culture, society, economy & geography (Spielmaker, 2013). The curriculum also aligns with content areas social studies, science, and health.

NFA

The NFA (New Farmers of America) started in Virginia in May 1927 as single state organization (Wakefield & Talbert, 2000). By 1965 the organization had developed 1,000 chapters consisting of more than 58,000 active members (Wakefield & Talbert, 2000). In 1935 the NFA state representatives came together during a meeting at Tuskegee Institute, the conclusion was that the NFA changed from state associations to a national organization (Wakefield & Talbert, 2000). During the meeting, state representatives formed a constitution and by-laws for the new national organization (Wakefield & Talbert, 2000). The NFA served as an agricultural educational program that developed agricultural literacy amongst African American boys. The NFA provided African Americans in public schools across America with opportunity to learn about agricultural concepts and participate in agricultural activities. Unfortunately, the 1965 merger of the FFA and NFA eliminated the NFA organizations and decreased agricultural education opportunity for African American youth.

FFA and NFA Merger

In 1965 New Farmers of American (NFA) and the Future Farmers of America (FFA) organizations were merged due to a push for desegregation during a time when whites and blacks

were living by the laws of Jim Crow (Moore, 2019). The merger of the two organizations was supposed to be a revolutionary act of change and opportunity for both the NFA and FFA. Discussions of the merger began in 1962 and continued as discrimination laws in the United States were changing (Moore, 2019). In 1964, the Civil Rights Act was passed which began the process of desegregation. Although the merger had been a topic of discussion between FFA and NFA officials mentioning of the merger during National Board Meetings held in July 1963 was not discussed most likely because the merging of the organizations was not a popular choice (Moore, 2019). Another National Board meeting was held in October of 1963 where the NFA and FFA merger was again not discussed (Moore, 2019). NFA leaders were also not included in the National Board meetings prior to 1964. However, in October of 1964 African American leaders from the NFA organization were invited to sit in at the National Board Meeting to "review developments, on the national level with respect to upcoming merger" (as cited in Moore, 2019, para 13). During the meetings recommendations regarding the merger was discussed and 5 specific recommendations (below) were agreed upon.

1. State committees should be established to work out state-level issues regarding the merger (it should be noted that five states merged their NFA and FFA prior to the national merger. New Jersey, West Virginia, and Maryland are the ones I have documented. I don't know the other two).
2. Have professional Negro Educators serve as Board Consultants during the merger.
3. The merger will become effective on July 1, 1965 (in earlier discussions June 1, 1968, was the target date for the merger but that was vetoed by officials in the Office of Education)
4. The NFA will be allowed to hold one final convention in 1965 to wrap things up (they had been told by a federal education official at the 1964 NFA convention that this would be the last. That was a shock).
5. NFA members are to be encouraged to attend the 1965 FFA convention where special activities will be planned

These 5 recommendations were developed so that NFA members had equal representation and opportunity within the new merged organization. Dr. Tenney who then served

as the Director of the Agricultural Education Service in the Department of Health, Education and Welfare indicated that the recommendations will be sent to Commissioner of Education for approval and be presented to state advisors (Moore, 2019). In July 1965, FFA and NFA student and adult officers met and NFA made several leadership requests. NFA members requests "were to have equitable representation on the FFA Board, have a permanent civil service position in Washington in the Agricultural Education Service to be filled by a black person, and to allow monies in the state NFA coffers to be used by former NFA chapters to buy FFA paraphernalia to replace their NFA paraphernalia" (Moore, 2019, para 18). Unfortunately, the FFA board was never restructured to include requests made by NFA, and the request for the new civil service position was not approved by Office of Education (Moore, 2019). The failure to accept the requests of the NFA members is evidence that the impact of the merger was not a positive transition for the NFA. Unequal power distribution was a huge issue that emerged due to the merger of the FFA and NFA. NFA students and administrators were not given the equal opportunity of serving the FFA organization as they had previously been able to before the merger.

Impact of FFA and NFA Merger

During the time of the Smith Hughes Act in 1917 African American participation in the agricultural education professional fields rapidly increased (Bowens, 1994). The Smith Hughes Act goal was to provide federal funding for states to disseminate vocational education in agriculture, home economic, industry, health related occupations, and business (Moore, 2017). During this time segregation was in place and whites and blacks attended different schools which means that each group had their own teachers, school systems, and organizational structures. Before the emergence of desegregation laws, the NFA "was an organization of Negro farm boys

studying vocational agriculture in the public schools throughout 18 states in the eastern and southern United States" (Wakefield & Talbert, 2000, p.95). After the federally mandated desegregation laws of 1960's the infrastructures that supported and maintained African Americans in agriculture drastically declined (Bell, Powers, & Rogers, 1987). A study conducted by Wakefield and Talbert focused on the historical narrative of issues relating to the impact the NFA had on selected past members. During the study research interviews were conducted with past NFA members. The findings were substantial in supporting the fact that the impact of NFA and FFA merger was devastating for African Americans. Participants responded that,

“The FFA limited the participation of Black students in youth activities because Blacks don’t have the opportunity to be leaders in the organization like they did when the NFA was there" I wish we could develop the FFA to get more Black involvement as officers because Blacks are missing that experience. It was very difficult to receive awards in the FFA. See the Black students felt like the NFA was their organization and they didn’t see the FFA as being their organization as much as they did back then.”

(Wakefield & Talbert, 2000, p.100).

Agricultural literacy education for African American youth was also affected by the merger because African Americans were not in places of leadership, black youth did not receive equitable education. Participants in Wakefield's study stated that:

“One of the things I think when we look at the differences sometimes in the merger, I know that the NFA teachers were very dedicated and motivated, and they worked extremely hard to make sure that their students understood their roles and responsibilities. People along there with me would take a student whether they were Black or White and try to push them to the max, but agriculture teachers after me that didn’t have no dealings with the NFA wouldn’t push a student to the max. I guess because they didn’t know how to push Black students. Most teachers doing that time expected all of the kids to succeed” (Wakefield & Talbert, 2000, p.100).

African American teachers lost their positions during the merging of the groups and without representation of black teachers' students felt less motivated to participate in the program (Wakefield & Talbert, 2000). The impact of the merger also financially destroyed the NFA and all the progress that had been made by the organization. According to Moore (1999) the merger was indeed a government mandated takeover that not only caused confusion but,

with the merger, the NFA was required to give up its name, constitution, bylaws, emblems, money and its 52,000 members. The merger required the NFA to transfer all its National assets to the FFA. The transfer was substantial; in the 1964 audit report the NFA had \$10,445.56 in checking, \$32,355.30 in savings, and \$3,800 in stocks and bonds (Moore, 1999, p. 35).

Participants in Wakefield's study noted that the loss of NFA representation made the atmosphere of agricultural education tense for teachers, students, and administrators with black teachers losing their positions and black supervisors unable to provide input to white teachers (Wakefield & Talbert, 2000). From Wakefield's study it can be concluded that past members of NFA believe that integration of FFA and NFA led to a decline in African American participation in agriculture and the FFA (Wakefield & Talbert, 2000).

Land Grant Universities

Land Grant universities are institutions that were designated by state legislation to receive benefits of the Morrill Acts of 1862, 1890, and 1994 (Miller, 2016). The first Morrill Act of 1862 provided federal funds to establish an endowment fund to develop land-grant colleges of agricultural, military tactics, liberal education, mechanical arts (Alabama A&M University, n.d). Due to the end of slavery in 1865 and desegregation laws the second Morrill Act of 1890 was created to provide land for blacks to attend colleges (Alabama A&M University, n.d). The third Morrill Act of 1994 provided funding for land to develop colleges for Native Americans. The

purpose of land grant universities is to serve everyone and provide education to all so that Americans can gain a practical education that would prepare them to join the working class. A critical mission of land grant universities is to provide extension. Through extension land grant universities can provide practical information that is obtained through research to agricultural producers, families, consumers, and young people (National Institute of Food and Agriculture, n.d). The 1914 Smith Lever Act established extension services to land grant universities (University of Florida Extension, n.d). The cooperative extension system is essential for providing non-formal higher education to address public needs.

Land- Grant or Land- Grab

Land grant universities began in 1862 when President Abraham- Lincoln signed the Morrill Acts which allowed for land that was recently seized from indigenous groups to be used for the construction of colleges. During the land grab 10.7 million acres of land were taken from nearly 250 tribes (Ahtone and Lee, 2020.) Not only were colleges built on the seized lands but many house, churches, restaurants, parking lots, etc., stand on the land today. The Morrill Act did not only benefit the foundation of land grant colleges, but cities and other structures were built due to the grants generated from the land. According to Ahtone (2020), the grants were sometime located thousands of miles away from their beneficiaries for example Niles Canyon Railway in Sunol, California was donated to State of Alabama for Auburn University. The funds for land- grant institutions were acquired through sold land which the U.S government acquired freely through violence. There were 160 violence backed land cessions due to the passing of the Morrill Act (Ahtone, 2020). When considering the histories of land-grant universities many do not consider the fact that land grants are built on land that was obtained by indigenous people

losing their homes and the rights to their lands. Land- grant universities should acknowledge that inequity within institutions as such have been perpetuated through systems in the U.S for centuries. Indigenous people should be celebrated for the contribution of their land to higher education in the United States. No monetary gain can replace the loss of culture, generations, family, and freedom that the indigenous had to endure due to the cession of their lands. To break cycles of inequity and unequal power dynamics awareness of injustice that land- grant universities have caused indigenous groups should be acknowledged within these institutions.

History of 4-H

The idea of 4-H programs was planted way before the development of the actual 4-H organization. In 1902 A.B Graham organized a youth program where the youth were involved in a home project based on corn (History of 4-H, n.d). The original purpose of the youth-based program was to make public school education more connected to country life. 4-H emphasizes a hands-on approach to learning because the organization believes that youth "learn by doing". The roots of 4-H are in rural America and the program was created with a sole purpose of helping rural youth (4-H History in Brief, n.d). Researchers noticed that unlike traditional farmers young people were more enthused and excited to try new techniques and experiments when it comes to production of food and other agricultural concepts. The initial purpose of 4-H programs was to teach youth agricultural concepts that can be utilized in their communities. In 1907 the first 4-H program was connected to a university. The Mississippi State College of Agriculture superintendent established a corn contest consisting of 120 boys. O.H Benson created the first 4-H emblem between 1907 and 1908 which consisted of three- leaf clover which was later changed to four-leaf clover to represent heads, hearts, hands, and health (History of 4-H, n.d). By 1912

groups were recognized as 4-H clubs and by 1914 4-H became a national organization due to the Smith and Lever act. The Smith-Lever Act of 1914 established extension services of land grant colleges which included boys' and girls' clubs that were focused on developing youth such as 4-H (History of 4-H, n.d).

Racial Inequality within 4-H

4-H program was initially developed by white Americans for white Americans. Young rural white Americans were seen as the target population for 4-H clubs. Although African American populations were large in rural America during the development of 4-H. Despite African American involvement in 4-H, the image that 4-H portrayed in media reflected white Americans with specific gender roles that relate to agriculture production. According to past USDA statistics African American enrollment were concentrated in southern states such as Kentucky, West Virginia, Missouri, and Maryland (Rosenburg, 2016). The 4-H programs in those states were segregated at the time and housed out of African American agricultural institutions through a separate "negro" extension service (Rosenburg, 2016). African American extension services were underfunded and understaffed. African American 4-H clubs never received the same opportunities as white clubs, black 4-Hers were excluded from national 4-H events and were denied funding to access camps and other social opportunities (Rosenburg, 2016). By the 1940's African Americans were "contesting the all-white public image of 4-H" recognizing that 4-H symbolized "white, rural, heterosexuals dedicating body and labor to the nation" (Rosenburg, 2016, p.153).

Diversity, Equity, and Inclusion (DEI) Efforts for 4-H Thriving Model

4-H youth development agent Nia Fields wrote an article about utilizing an equity lens to further the efforts of the 4-H organization to reach marginalized communities. She wrote that "the opportunity gap that exists in its programming cannot be fully addressed if an equity lens is not applied to the systematic analysis and delivery of programs" (Fields, 2020, p. 171). Fields argues that youth, staff, and curriculums need to better align with the "diverse needs and social conditions of the country" (Fields, 2020, p. 171). She argues that shared understanding of meaning of terminology such as culture, inclusion, diversity, equity, and equality is important when discussing goals for youth programming. Terms like diversity and inclusion that are commonly used in programming should be understood to mean different things. While diversity is the act of having diverse backgrounds in a space, inclusion is important for ensuring that all people feel supported, belonging, and respected within the same space (Fields, 2020). Equity goes beyond equality and ensures that people are provided with the resources needed to eliminate barriers that perpetuate failure (Fields, 2019). Fields utilizes theories such as culturally relevant pedagogy to support her research, using the theory she developed a list of 10 strategies for educators as they engage with communities utilizing CRP approach.

Fields addresses the 4-H thriving model through an equity lens, she explains how processes in the model could utilize culturally relevant paradigms when considering program curriculum instead of one-size fit all program models for youth (Fields, 2020). Throughout the model she challenges the equity considerations of the developmental outcomes that are an expected result of the 4-H thriving model. 4-H thriving quality aspects such as supportive relationships can be looked at through equity lens to consider relationships with diverse groups of adults and youth that represent the identity of youth (Fields, 2020, p. 187). Developmental outcomes such as academic motivation and success should be looked at through equity lens to

consider inequitable access to quality education in academic motivating factors, as well as inequitable access to quality education in academic success outcomes. Throughout her research she outlines equity questions that educators can utilize to support developmental inputs and outcomes that youth receive as they matriculate through 4-H programming. In America we know that education for whites and blacks is not equitable because the U.S education system is built by and reflective of "colonial and Eurocentric epistemologies" which leaves marginalized groups to assimilate (Ladson-Billing, 2000). As Fields stated, historic oppression and systemic barriers that certain groups may face makes it impossible for educators to utilize a one-size fits all approach in their programming or community engagement (Fields, 2020).

Engaging Pedagogy Bell Hooks

Bell Hooks is an academic scholar who has dedicated much of her work to revitalize the teaching and learning experience. In her work, Hooks challenges traditional educational practices and pedagogy that supports hierarchal white supremacist, racism, sexism, and classiest policies (Hooks, 1994). Hooks work has developed critical pedagogy that challenges students to think critically and transgress against systems of oppression boundaries. In her book, *Teaching to Transgress* she emphasized that education is a practice for freedom that goes beyond literacy (Hooks, 1994). Hooks believes that knowledge base should be reconceptualized linking theory to practice, student empowerment, multiculturalism and passion to making learning meaningful and engaging. Engaging pedagogy can be utilized to deter disinterest and apathy that many students face. Hooks scholarly work can be utilized by educators to create curriculum and learning experiences that highlight youth interests and cultures instead of forcing traditional Eurocentric epistemology and practice onto youth. Hooks work can also be utilized to support 4-H

programming utilization of diverse strategies and practices for inclusion of diverse groups of youth.

Theoretical Framework

Culturally relevant pedagogy is a theoretical framework conceptualized by Gloria Ladson-Billings; her work was situated with educators of African American students who displayed academic success. She notes that culturally relevant pedagogy is “a pedagogy of opposition [that is] committed to collective, not merely individual, empowerment” (Ladson-Billings, 1995b, p. 160). CRP is a great framework for addressing issues of social justice and equity. With utilization of this framework educators provide instruction “that empowers students intellectually, socially, emotionally, and politically by using cultural referents to impart knowledge, skills and attitudes” (Ladson-Billings, 1994, p. 17-18). Culturally relevant pedagogy is a good fit for this study because adopting the CRP framework for educators can increase educator’s capacity to develop diversity, equity, and inclusion within the curriculum and programming. Also, CRP can develop educators who are aware and knowledgeable of the diverse backgrounds that students inherit and how student backgrounds must be considered in instructional designs. Agricultural education and 4-H programming have only traditionally been afforded to White rural populations often ostracizing urban minority students. CRP provides educators with a design principle that allows them to address student academic success, sociopolitical capacity, and cultural competence. Ladson-Billings defines academic success as “intellectual growth that students experience as a result of classroom instruction and learning experience” (Ladson-Billings, 2014). Sociopolitical consciousness as “the ability to take learning beyond the confines of the classroom using school knowledge and skills to identify, analyze, and

solve real-world problems" (Ladson-Billings, 2014). Cultural competency "refers to the ability to help students appreciate and celebrate their cultures of origin while gaining knowledge of and fluency in at least one other culture" (Ladson-Billings, 2014).

What is CRP? - Culturally relevant pedagogy is a theoretical framework that prepares educators to provide equitable education for all students (Ladson-Billings, 1995a). Instead of using a lens to characterize traditionally marginalized groups of students as incapable of academic success CRP challenges educators and their ability to produce academically successful students. Ladson-Billings developed culturally relevant pedagogy to address gaps in theoretical frameworks such as culturally responsive teaching. She noted Irvine's (1990) research on macro and micro analyses of African American students and schools' failures in this research it was found that teacher-student relationships, institutional, and societal contexts affect student success (Ladson-Billings, 1995a). It is important to note that educators of minority students such as African Americans were of consideration when developing the culturally relevant pedagogy framework. Ladson-Billing's framework helps to build on the work of previous scholars whose framework only addressed bridging the gap between home and school (Ladson- Billings, 1995a). The goals of culturally relevant pedagogy are to develop students who are academically successful, accept and affirm their social identities, while developing critical perspectives that challenge inequities that institutions perpetuate (Ladson- Billings, 1995a).

Why CRP? - There is plenty of research that suggest explanations about African Americans students and their academic failures, findings of this research suggest that cultural differences are an implication for student failure. In her work studying educators who African American students display academic success Ladson-Billings found that student's success sometime come

at the expense of their cultural well-being (Ladson- Billings, 1995a). African American students who prevailed in academics were often socially oppressed by their peers and noted as "acting White" (Ladson- Billings, 1995a). Her findings suggest that pedagogy should merit cultural intelligence along with academic success.

Theoretical Underpinnings of Successful CRP Educators

Ladson-Billings identified theoretical perspectives that educators should inherit and consider to be successful in meeting criteria of culturally relevant teaching. Examining the participants from her study, she noticed that the educators held certain ideologies and beliefs that added to their success to deliver CRP. She was able to compile the list based on her past research. She noted that educators must consider the following when conducting CRP.

1. their conceptions of self and others held by culturally relevant teachers
2. the way social relations are structured
3. their conceptions of knowledge

Educators' conception of self and others affect their teaching styles and student development. Educators who hold negative beliefs and conceptions about themselves or their students often work poorly to encourage student academic success. In CRP educators should make conscious decisions to have positive notions of self and students. *CRP* educators display social interactions that encourage equitable and reciprocal teacher-student relationships and:

- maintain fluid student-teacher relationships,
- demonstrate a connectedness with all the students,
- develop a community of learners,

- encourage students to learn collaboratively and be responsible for another.

CRP educators hold certain conceptions of knowledge, including:

- knowledge is not static; it is shared, recycled, and constructed,
- knowledge must be viewed critically
- teachers must be passionate about knowledge and learning,
- teachers must scaffold, or build bridges, to facilitate learning

Chapter Three: Methodology

Purpose of the Study

The purpose of this study was to explore 4-H agents' perceptions of 4-H programming and established agricultural literacy outcomes to identify potential design principles for culturally relevant agricultural education in urban classrooms, after school programs, and 4-H programs. From this study, the hope is that new 4-H agricultural programming in urban school settings is developed such that agricultural literacy outcomes for students are addressed in a way that is responsive to the new ECOP diversity, equity, and inclusion goals for 4-H (Fields, 2020).

The research was guided by the following questions:

1. In what ways, if any, do participants perceive 4-H programming as supportive of youth academic success, developing cultural competence within youth, and developing critical consciousness within youth?
2. In what ways, if any, do participants perceive agricultural education as supportive of youth academic success, developing cultural competence within youth, and developing critical consciousness within youth?
3. From the perspective of participants, what should design principles for urban 4-H agriculture programming include to ensure that it is supportive of youth academic success, developing cultural competence within youth, and developing critical consciousness within youth?

The research was conducted utilizing a qualitative descriptive study approach. Qualitative descriptive studies are useful for producing summarizations of events experienced by groups of

individuals (Lambert, 2012). Descriptive research designs aim to describe what rather than why, (Nassaji, 2015). Characteristics of the population being studied are defined and explained using descriptive research (Nassaji, 2015). As Lambert suggests qualitative descriptive studies include grounded theory overtones especially when examining the data (Lambert, 2012).

Context for the Study

The study was conducted with participants from various states across the nation that have 4-H programs. Participants from Illinois, North Carolina, Kentucky, and Virginia were included in the study. The target audience of the study was 4-H agents who deliver 4-H program amongst urban populations.

African American and Latino ethnic groups make up 60% of Chicago's population (census.gov). Health disparities for these racial groups are unequal and minorities populations suffer greatly from chronic diseases, obesity, and food deserts. In 2013, the Chicago Department of Health along with CPS conducted a study to indicate the prevalence of overweight and obesity in Chicago children, they found that students in CPS have higher rates of overweight and obesity when compared to children from the same grade within the United States (clocc.net, 2013). The study also identified the fact that 49% of African American, 44.2% of Latinos, and 31.2% of white students in Chicago are obese. Obesity rates in Chicagoan children can be attributed to the food deserts that plague the city. Food deserts in urban areas are described as areas of low-income census tract where residents are more than 1 mile from a supermarket or grocery store (ers.usda.gov). Research has shown that 70% of Chicago students do not intake the recommended amount of fruit and vegetable servings per day (clocc.net, 2013).

Health disparities in Kentucky also show that Hispanic and African American populations have higher rates of obesity, and other health issues than white counterpart (Seger &

Luu, 2016). Dr. Brent Duncan a doctor at west Louisville YMCA has done research that discovered that blacks in Kentucky are suffering from chronic illnesses such as diabetes, heart diseases, and high blood pressure at higher rates than Hispanics and whites (Herring, 2020). The chronic illnesses mentioned above are usually the result of poor diet, and lack of physical activity. With education about agriculture health disparities in Kentucky and across other states can be lessened.

North Carolina is making great strides to create change for health equity amongst all racial groups in the state. Research done in North Carolina has shown that public policies such as food safety regulation and agricultural policies, are drivers of health. The Healthy North Carolina Task Force is addressing issues of structural racism that affect health disparities. Discriminatory practices towards marginalized groups such as fewer educational resources, lack of sufficient health care, redlining, and transportation are all structural systems that have added to the health decline of those groups (Lyda-Mcdonald, 2020). Reports from the group has shown that African Americans in North Carolina are 2.3 times more likely to die from diabetes and kidney disease than whites (Health Equity Report, 2018).

Reports about health disparities amongst Virginias' population shows that 25.2% of adults are food insecure (Virginia Health Equity, 2012). The research conducted found correlation between living in safe neighborhoods with poor health and racial discrimination and poor health (Virginia Health Equity, 2012). Reports from Virginia's department of health showed that African Americans were 1.3 times more likely than whites, Asians, and Hispanics to die from heart disease, cancer, and stroke (Virginia Health Equity, 2012). Throughout many states across America there is evidence that minorities experience health inequality which is intentional and structural. There have been many systems in place that have unintentionally affected

minorities in ways that have led to lack of education, poor health, poverty, and lack of autonomy amongst minority groups. Lack of education in agriculture and of agricultural principles within marginalized groups will only lead to worse health, living, and societal conditions for all. After all, the more hands in agriculture the more chances to produce food that is sufficient, safe, and healthy for all.

Qualitative Research Paradigm

This study was guided by the critical paradigm. The critical paradigm seeks to challenge current ideologies and systems within societies that perpetuate oppression and unequal power distribution (Willis, 2007). Using a critical lens to interpret findings will result in an elaborate analysis and reflection that can aid in social change (Willis, 2007). With utilization of a critical paradigm, the findings in the study can be utilized to critique current social and political systems while making transparent the distorted realities these current systems create (Willis, 2007). The interview questions in the study were also guided by the critical paradigm. The purpose of this research was to emphasize the challenge of the ability of current educational systems and specifically programs such as 4-H to be inclusive and reflective of diverse African- American cultures of youth. The critical paradigm drives the underlying assumption within the research that current 4-H programming may not meet the needs of urban youth. Utilization of the critical paradigm will hopefully produce results that can be utilized to create change to youth development programs and educational systems.

Role of Researcher/Reflexivity

I am a 25-year-old African American female second-year master's student in the Department of Agricultural, Leadership, and Community Education at Virginia Tech. I am also employed as a graduate assistant; I co-teach courses from the Civic Agriculture and Food Systems minor

offered at Virginia Tech. I am the youngest child of four and I come from a very close-knit family. My family originally hails from the Southern region of the United States. My dad's maternal great-grandmother migrated to Chicago from Mississippi and my mom's maternal grandmother migrated from Georgia. I grew up in an urban city with no connection to agriculture, but I believe that my families love for food is what connected me with agriculture. Entering my undergraduate Kentucky State University, I had great interest in computer sciences and even started college majoring in computer sciences but because of the universities' status as land grant institution I was shortly introduced to agriculture. As I think back its very funny that I was introduced to agriculture by another student who is from Washington, DC which is an urban area. My first interaction with agriculture happened a month after attending the university and I must say the experience opened my mind. I had never heard of the word agriculture before that day, but I could not stop thinking about it after. I thought it was so intriguing that people studied the foods they eat daily. I found it so captivating that a person like me could be in control of my food system and have education that can lead to better health for me and people who look like me. As I was excited to be able to engage in agriculture it also saddened me that I was not afforded the opportunity to learn about agriculture during my primary or even secondary education. The issues of uneven power distribution and the effect it has had on education of marginalized groups is detrimental to society in many ways. The lack of quality education afforded to minority groups in America is disheartening. As I matriculated through college and learned more about agriculture and how it is not only about food my passion to spread the word of agriculture grew. My education led me to think about how obesity, diabetes, and other health related diseases plague African American populations in cities like Chicago and how efforts to improve their health statuses are few. There is a need for minority populations to be added into

the conversations about agriculture. All citizens of this country should have knowledge about the food they consume and how food determines the overall health of individuals. Primary agriculture education can help students become informed consumers who make educated decisions. Introducing minority students to agriculture during primary education can also bring more diverse populations into the agriculture workforce.

Research Design

The target population for this study was 4-H agents who have the experience of delivering programming in urban elementary classrooms and communities. 4-H agent participants were chosen based on their recent experience delivering 4-H in urban elementary classrooms and communities.

Participant Selection

Participants were identified through varying ways. Some participants were identified through my own personal network with 4-H agents that were met while in college. Identification of potential participants that were unknown, began by utilizing advisor personal relationship and connection to 4-H agents in urban localities. Participants were from four different states and states were not chose intentionally but were chosen based on agent availability to participate in the study.

Identification for participants also happened through researching agents on county 4-H websites and from current participants providing contact information to agents who may be potential participants. Participants were recruited and selected based on criteria to fit target population and their willingness to participate in study. Agents who have experience with African American youth was a selection criterion for the participant selection. Agents were also chosen based on criteria to have delivered 4-H programming in urban areas. Purposive sampling was used to select the participants in the study based on judgement of researcher. Purposive sampling is

utilized in qualitative research to identify and select individuals who have experience with the phenomenon of interest (Creswell and Plano Clark, 2011). Specifically, homogenous sampling is utilized to select for a sample that shares the same occupation. Participants were chosen based on their recent experience with 4-H in urban areas throughout varying states.

Participant Description

There was a total of seven participants in the study. Participants in the study were from the Midwest and eastern region of the country and they all have experience as 4-H agents for at least 5 years. Participants were from Illinois, Kentucky, North Carolina, and Virginia. Participants were of white and black racial groups. 71% of participants were black and 29% were white. Participants in the study have experience working in school classrooms, after-school programs, community centers, and summer camp as 4-H agents. All participants also had experience working with African American youth within 4-H programs.

Recruitment of Participants

An IRB request (Appendix A) was completed with Virginia Tech's Institutional Review Board prior to the start of this research. An initial recruitment email was sent to individuals to introduce the research purpose to potential participants and to receive consent from research participants. The steps for recruitment are listed below.

1. Introduction to agent to schedule phone call (may be introduced via phone, or email)
2. Phone call
- 3.. Follow Up
4. Follow Up
5. Formal Ask via email and consent form
6. Collect consent forms

7. Schedule interviews

Data Collection and Instrumentation

Individual and focus group interviews were utilized to assess participants' opinions and experiences of their role within 4-H programming and working with urban youth populations. Interviews were held via Zoom since participants and researchers were in varying states. Seven individual interviews and two focus groups interviews were conducted. Each interview lasted for approximately 25-60 minutes depending on the length of participants responses.

The purpose of the initial interview was to gain insight of participants' perspectives and opinions about existing 4-H programming while assessing how 4-H programs can become more culturally appropriate for African American urban youth.

The second interview investigated how participants perceive agriculture education and design principles of programming as important for meeting required education standard in the classroom. The second interviews were in focus group, two focus groups were held with total of 5 participants from the first interviews. Focus groups promote group interaction while giving the researcher a chance to observe participants and moderate discussions (Mauldin, 2020). The interviews were audio and video recorded. Interviews consisted of semi-structured questioning to encourage in-depth discussions.

The individual interview guide (Appendix E) questions were created by utilizing an *a priori* table (Appendix D) which consisted of propositions that were created based on research and empirical evidence found from literature. The individual interviews (Appendix E) were used to understand 4-H agents' perspectives and opinions about existing 4-H programming while assessing how 4-H programs can become more culturally appropriate for African American urban youth.

The focus group interviews (Appendix F) were used to understand 4-H agents' perspectives and opinions about design principles for 4-H agricultural programming. Focus group interview guide questions (Appendix F) were developed using a scenario that supports the phenomena being studied while also considering the themes and responses that were discussed during individual interviews. The focus group interviews were semi structured. Information from interviews were recorded via Zoom and digital tape recorder. All recordings were stored on Google Drive with case- sensitive password.

Data Analysis

Recordings from interviews were transcribed and coded. Open coding was conducted initially to develop categories of information (Creswell, 2014). Open coding was utilized firstly to critically examine data for dominant theoretical ideologies that relate to research questions (Charmaz, 2006). Descriptive coding, in-vivo coding, and value coding methods were utilized during first cycle coding. Descriptive coding summarizes the topic of the data in short phrases (Saldaña, 2013). In-vivo coding is a method to create codes that emphasize terms and language utilized by participants (Saldaña, 2013). Value coding methods will also be utilized to reflect participants values, attitudes, and beliefs; this will be useful in the study because the purpose of the study is capture perceptions of the participants (Saldaña, 2013). The first cycle consisted of open coding with the lens of my research questions as guiding constructs. After open coding I created initial categories. During the initial category development stage codes were debriefed with my thesis advisor as a form of researcher triangulation. The data was then recoded utilizing final codes and final categories into the web software Atlas.ti. Subcategories were developed based on the categories and codes. Themes were developed utilizing culturally relevant pedagogy theoretical

framework and propositions from *a priori* table. Finally, I reorganized codes into new categories after writing theme descriptions based on new insight.

Trustworthiness

Trustworthiness helps researchers persuade their audience that, findings produced from research are meaningful (Lincoln & Guba, 1985). Lincoln and Guba suggest that trustworthiness is met when research has credibility, transferability, dependability, and confirmability (1985).

Strategies such as triangulation and member checking will be implemented to build trustworthiness. The process of data triangulation aids in credibility by merging the multiple perspectives and data from each participant and identifying themes (Creswell, 2014). To ensure data triangulation I debriefed data and themes with advisor before finalizing. To ensure trustworthiness I made sure to member check data with participants. I sent each participant their transcript and asked them to review for member checking. Member checking helps determine whether participants agree with accuracy of findings (Creswell, 2014). Member checking will be necessary because the study is dependent upon participants perceptions and values.

Limitations of the Study

The participants in the study may not have much experience delivering 4-H programming in areas that are considered urban by definition from National Geographic.

Basic Assumptions

The assumptions listed are basic assumptions from the researcher.

1. 4-H agents encourage urban African American youth to be involved in 4-H programming.
2. Diversity and inclusion efforts are considered by 4-H agents when delivering programming.
3. 4-H agents want to expose urban African American youth to 4-H programming.

4. 4-H agents understand the importance of engaging youth from marginalized groups with 4-H programming.
5. 4-H agents consider design principles of 4-H programming when disseminating programming to youth.
6. 4-H agents have experience altering or creating 4-H programming that connects urban African American youth with 4-H.

Chapter 4: Findings

The purpose of this study was to explore 4-H agents' perceptions of 4-H programming and established agricultural literacy outcomes to identify potential design principles for culturally relevant agricultural education in urban classrooms, after school programs, and 4-H programs. The results of this study can contribute to identifying design principles and outcomes for 4-H programming that utilizes a culturally relevant pedagogy lens when designing and delivering curriculum. Utilizing data from individual and focus group interviews with 4-H agents across varying states, four themes were developed to describe their opinion of utilization of culturally relevant agricultural education that is delivered through 4-H programming. For this study, urban populations were studied with a focus of African American urban youth as the target audience. Urban youth are youth that live in high density cities, towns, or suburbs.

Theme 1: Holistic Approaches to Engage Urban Youth in 4-H Agriculture Educational Programming

This theme explores the approaches and strategies that agents have identified that are helpful in successfully engaging urban youth into spaces where they can learn about agriculture through 4-H educational programming. Holistic approaches include varying strategies that when viewed as a whole instead of parts can be utilized to successfully engage urban youth into 4-H agriculture educational programming. Educational programming for the purpose of this study is defined as programming that is intended to provide content that students can utilize in traditional educational settings. This theme was developed by analyzing two categories. The categories entitled (1) solutions to connect urban youth to agriculture and (2) agent strategies were analyzed, and a common theme was developed between the two.

Solutions to connect urban youth to agriculture

The participants in the study described solutions to connect urban youth to agriculture. Exposure to agriculture was a recurring code that many participants noted in their responses. Since urban youth are traditionally not exposed to agriculture through their environment, agents noted that exposure is important in engaging urban youth. Agent Kate stated,

"I believe that every diversity and ethnicity should have the opportunity to explore I guess to explore their horizons, and gain some type of exposure, because most youth that live in our urban area, are not exposed to areas of agriculture, or STEM, or other ag related fields, I mean, family consumer sciences as well, because that is housed under ag. And so, I believe that gives them some type of exposure at an early age versus at a later age" (Kate, Interview, 4:1).

This quote addressed the idea that agricultural educational programs provide a space where urban youth can explore agriculture and be exposed to what agriculture is. Again, because urban youth traditional environments are typically not supportive of youth being exposed to agricultural principles such as farming or food production. Another agent spoke about the idea of exposing youth to agriculture through various school programming. Agent William stated,

"And so, they had a great opportunity to go through the embryology program. And that gave every child in classrooms that exposure. And so that's again, making sure we connect with schools to give them that opportunity for exposure. School gardens, you know, school community garden, we're starting that up talking about fruits and vegetables, a therapeutic garden, when you talk about children that may have behavior problems, or psychological or any type of problems that are neurological, there may not be the best benefit all the time sitting in a classroom setting will allow them to go outside, we allow them to see a plant grow, we allow them to see the changes, see how in the water, seeing how to be outside and be within nature to help them therapeutically." (William, Interview, 3:41)

Agent Williams emphasizes in this quote the importance of exposure to agriculture. He explains how the exposure to a new concept such as growing in a school garden or seeing a chick hatch through an embryology program can be utilized to change youth behavior. Exposure to agriculture in urban areas can be initiated by school programs to provide access and exposure to

children in the school system. Agents also spoke about using resources that are available to urban youth to expose them to different areas of agriculture. Agent Kate stated,

"Oh, I just really think it's like dependent on your area. So, for our area, we really focus on hydroponics. So, we let them know, even in your if you're going to have authority, you might not have the same exposure to like having a garden? So how can if you have an interest in gardening? How can we make that happen? So, I've done hydroponics with groups, what else we've done is jet toys so might not necessarily require computers or anything. So, it's kind of like looking in your environment, what's available to you? How can you switch up a program to still be just as inclusive as if you did have the same resources? So, Gardening is heavy, in our area. Everybody has a garden. We really don't have too many farms. So, we really don't have much exposure to livestock or poultry, or anything like that. And then we do try to make sure like during the summertime, if we're able, once we're able to start back traveling, we do try to go to different farms to try to visit. I do invite my kids to what we call like I farm city day. So, they learned about agriculture farm. And we took, you know, kids to [land grant university in my locality] where they had the dairy farm. So, they got to sort of the dairy farm. We went to [land grant university in my locality] so then they got to see it another part of the farm. So, they got to see the chicken unit or something else. So, I do try to add a component in." (Kate, Interview, 4:33)

Exposure to agriculture for urban youth is different for exposure to youth who have traditionally been emersed in agriculture. Resources and opportunities for urban youth in agriculture varies and agents must be adaptive. Agents are aware that when engaging with agriculture with urban youth they may be exposed to concepts for the first time. Agent Nicole has a garden club within her program which exposes youth to growing and harvesting foods. She stated,

Yeah, so I think about our garden clubs, which I think the closest connection to agriculture we're going to have here, and how like, it was on Tuesday, I had a girl I had everybody in the club planting radishes, and she's Hispanic, and African American youth, but she'd never planted a seed before. And so, she said, this was really cool. I don't know how to do this. Okay, hang tight. Three weeks, you might have a radish, try radish for the first time (Nicole, Interview, 5:33).

Funding to support urban youth participation in agricultural education was also addressed in agent responses during the focus group interviews. Agent Kate explained that while agents may want to introduce concepts of agriculture to youth they may not have "demonstration areas to go

about it" (Interview, 18:43). In this situation she stated that it's important to look into "funding sources" to ensure that educators have material to connect youth to agriculture (Interview, 18:43). Agents also emphasized the idea of viewing logistics of 4-H programs as a solution for successful urban programming. Agent Nicole stated, "I think the biggest thing I've learned working in an urban program is that it's the logistics that make it possible" (Interview, 37:06).

Agent strategies

Responses from the agents showed that the agents utilize specific strategies when approaching the engagement of youth in agricultural programming. Agents discussed strategies such as building awareness, accountability, being intentional in their work, and staying culturally relevant. When asked how an agent could better account for the needs of African American youth within their programming agent Judy responded,

"Always staying culturally relevant is important. Sometimes I find myself getting a little disconnected with the culture and the norms for what the kids view as norm nowadays. So, remaining culturally relevant is one of the ways I know for sure, I can better identify better connect, improve my programming and my approach to programming". (Judy, Interview, 6:22)

Relating to the community was another strategy that was common across agent responses. Agent Tyler discussed "finding out what the needs of the community and the individual communities underneath that communityare, and meeting them" (Interview, 2:6) are one of the things that 4-H does well in terms of supporting youth. Being connected to the school system was another strategy discussed to engage youth. 4-H agents expressed how leveraging relationships within school systems is an opportunity to connect with youth with the community. Agent Tyler works with the school system in his county to connect youth with 4-H. He stated that,

"And then we do work with the students a little bit too, and just asks where, where are your needs. So, we might do a lesson in class, you know, the teacher might say, my kids are having trouble with experimental design. So, we'll come in and do something hands on to kind of reinforce whatever they were teaching. But then we can also do after school stuff that just works specifically with a kid that says, I don't understand how to do the scientific method. Okay, well, let's work on a small group and make sure your needs are being met" (Tyler, Interview, 2:35).

Agents also expressed how diverse representation amongst 4-H volunteers can be a strategy that is successful in engaging African American youth with agricultural concepts. Agents who are not African American expressed how it is impossible for them to fulfill the role of sharing the background with African American youth, but they can recruit individuals who do share the similarities. Agent Tyler stated that, "and making sure that I mean, I can't change the fact that I'm a white male, but I can recruit a volunteer who is Hispanic, or who is African American who can speak for me and the communities that I can't get into" (Tyler, Interview, 2:22). Agents expressed how volunteers are also beneficial to deliver program in specific content areas that agents may not have the resource of expertise to deliver. Agent Nicole states,

"So, my priority has been less teaching specific content areas, and more about trying to offer programs. And so, the way that typically aligns is we have big groups of volunteers that already exist. So master gardeners are huge up here, Master naturalists, Master food volunteers, and master finance volunteers are the big four that I pull from. So, if I need volunteers to run a program, and I have 10, Master Gardeners want to work with kids, then I'm less concerned about well, I think it's important to teach Ag and more concerned about have volunteers. I have kids who need a program. Volunteers are ready to teach gardening. So, let's teach gardening. The same is true. It's I have naturalists who want to work with kids, finance people who want to work with kids, what is the easiest program for those volunteers to teach so that I can get them in front of kids right away. So as a result, we do a little bit of Ag education. If I had a big group of farmers who wanted to work with kids, we could do more of it. But the content area is less important to me than that volunteer to kid connection and to get that up and running quickly". (Nicole, Interview 5:29)

She explains how utilizing volunteers allows for youth to be exposed to agriculture education.

Since 4-H agents do not always have resources to teach agriculture content utilizing volunteers is

a strategy for agents to expose youth to concepts that may not be solely offered by 4-H programming. Agents also discussed their process of growing awareness for agriculture and its importance as a science discipline. Agents expressed how before they can incorporate agriculture education for youth education, they had to learn how agriculture is deeply rooted in the daily lives of humans. Agent David discusses how his knowledge of agriculture has grown by being a 4-H agent and how he uses what he learns to encourage youth participation in agriculture.

"I've been working for extension for the past 17 years, going on 18 years. And I've learned a lot. And I have a different understanding of agricultural agriculture. From an insider perspective and understanding how important it is. There are several different aspects of agriculture. When you think of agriculture, and African Americans minds, I think a lot of our thoughts go to working in dirt, and doing things that are outside and all that there's a whole level of understanding with agriculture and I want young people, particularly African American youth have to be intentional about understanding what agriculture really is, it is, again, the one thing that rules the world, agriculture does stock market, and everything gone down". (David, Interview, 1:24)

Participants emphasized that agents must be invested into agriculture education before going to teach the concept to youth. Evaluation of programs was another design principal agents mentioned in the focus group interview. The strategy of evaluating programs is great for assessing if results of programming are intentional. Agent Patrick stated,

"And then how will you evaluate [your program]? Will it be, you know, from testimonies from each program participant, whether it be a formal evaluation, whether that's pre and post assessment or evaluation through Qualtrics? So how would you evaluate that and share it with not only the program participants, but their teachers, the community members, the stakeholders, and most importantly, your supervisor, and other extension personnel, your social media, I mean, all of that, all of those all of that data will be shared on social media sites as well whether it's Facebook or Instagram, you may want to really dive deep into that you know, 70% of the participants said yes, they would love to participate in a STEM program 80% said they had a sense of belonging so that's the whole schematic or the diagram of your particular program that this s should be included within your program" (Interview, 15:15).

Theme 2: Outcomes of Youth Participation in 4-H Programming

This theme explores the outcomes of youth participation in 4-H programming. Outcomes of youth participation from the data include youth learning science concepts, youth learning life skills such as oral presentation, and youth being able to critically analyze situations. Within the theme four categories were developed. The categories are entitled (1) Positive Youth Development (2) Benefits to African American youth participation (3) Benefits of 4-H principles for African American youth (4) Benefits of Ag Education.

Positive Youth Development

Positive youth development is an essential part of youth participation in 4-H programs. Through participation in the program youth learn tangible and non-tangible skills that are useful for their lives even after 4-H. By participation in 4-H programs youth learn personal development skills such as value of diversity, commitment, accountability, teambuilding, and inclusion. Agent Tyler discussed how important it is to have diverse representation of youth in programs. He stated, "If I didn't have a diverse audience in that group, those kids aren't going to have the same quality experience. You need to be around other people to expand your viewpoints" (Tyler, Interview, 2:4). Agent Tyler also spoke about inclusion and how inclusion is more than "checking a box..... the reality is, is if you don't bring everyone to the table, you're not going to have as good of an experience" (Interview, 2:3). When asked if it is important for African American youth in urban areas to participated in programs such as 4-H agent Judy responded, "it helps them to build a sense of accountability once they commit to something other than what's offered at school as far as extracurricular activities" (Judy, Interview, 6:1). She also responded, "I think once they like take ownership, and have that commitment on their end, they're more dedicated and they're more prone to learning the content, whatever the content is, and they're more open to growing

holistically" (Judy, Interview, 6:2). Her responses reflect the idea that youth participation in 4-H programs can lead to youth gaining a sense of accountability and commitment as youth are responsible for their own growth and commitment to 4-H programs. Agent Judy also states that youth "emotional and social development definitely is sharpened or further developed when they join these types of programs" (Judy, Interview, 6:3). Social development skills are gained in 4-H programs through relationship between youth and their peers. Youth are encouraged to work together in 4-H clubs. Agent Patrick discussed how youth collaborate while working on projects he stated,

"So, from the sense of confidence and character within 4-H and limited resource audiences and minoritized groups, we do a lot of team building, right? So, for example, at the STI or the summer Transportation Institute camp that we had, none of the teams knew each other. Some of them were some of them were introverts, some of them were extroverts, but they knew no one really knew each other. So, a few of them, maybe some of them went to the same high school, or most of them didn't. Well, my point is, they collaborated on the on the bridge design, they collaborated on building structure, and other kind of trip challenges we have, for example, they collaborated on the egg drop challenge. But it allowed them to become more vocal to as far as presenting their ideas" (Patrick, Interview, 7:9)

His response indicates that skills such as presentation, collaboration, and team building are examples of youth personal development skills that youth gain through participation in 4-H programs. Agent Kate emphasized the idea that teamwork helps youth to learn from each other she stated, "I always like to open my programs up with teamwork, were something dealing with teamwork. So that forces them to maybe talk to each other or forces them to think outside the box" (Interview, 4:12).

Benefits to Urban Youth Participation

There are many benefits to African American from urban areas participating in 4-H programs. Through 4-H programming urban youth are exposed to multiple opportunities such as youth serving their community, self-awareness of abilities, decision making access, growth of leadership skills, and exposure to diversity. Through 4-H programming youth are provided opportunity to engage in leadership positions. When asked how 4-H provides leadership skills agent David responded.

"It allows for leadership opportunities because it allows kids to determine what it is they want to do with any structure club setting. So, if you have a social issue that you want to participate in and you want to start some sort of activism of some sort, you most certainly can do that" (David, Interview, 1:3).

Youth in 4-H can hold leadership positions where they can exercise their leadership skills within 4-H programs youth can have the title of "a president, someone could be the secretary, so on and so forth, all of those things are important in building leadership" (Judy, Interview, 6:5). She continues, by adding that "4-H is giving them opportunity through them holding club officer positions and even holding member positions" (Judy, Interview, 6:8). Not only does 4-H provide opportunity to develop leadership skills youth are also given opportunity for "growing in confidence in their public speaking skills, and also just helping them to make critical decisions" (Judy, Interview, 6:6). Engaging in leadership positions also grants youth the opportunity to have autonomy in making important decisions, youth are commonly faced with decisions such as, "am I going to run for this position or not? Am I going to vote this person in or not ... no matter how big or how small they're all a part of the holding a leadership position in that leadership process" (Judy, Interview, 6:7). Youth becoming self-aware of their abilities is a benefit of urban youth participation. Often youth are aware of their incapacibilities but through exposure to new concepts and ways of learning youth can become confident in their capabilities. Agent Tyler stated,

"And so that is one of those skills we talked about where kids like, Well, I'm not very good at science. Yeah. But are you good at looking at a puzzle and figuring out how to solve it? That's, that's analytical thinking. That's problem solving that is science. And so that's a push that's an effort that I've been a part of teaching" (Interview, 2:16).

When asked about how 4-H develops confidence and character amongst youth one agent responded, "a lot of them have taken on the responsibilities of just been more aware of who they are with their skills and what their talents are" (Judy, Interview, 6:10). Agent Judy believes that 4-H, "definitely offers them [youth] all opportunity to showcase their unique skills or unique abilities and allow them to just be themselves and grow as future leaders" (Interview, 6:13).

Critical thinking skills are developed amongst youth in 4-H programs by teaching youth concepts they can utilize to enhance their own communities. Youth being critical about what they learn and how it applies to their lives at home is important for development of critical consciousness.

When speaking about how youth can utilize what they learned in their community's agent William stated,

"You want to say okay, but I go on to this corner store, they have it set up for cigarettes, candy, pop, those things that we don't need in our community to really, you know, affect our children and our family's health. But that same you know, the community can also set up a garden, they can do. What is that word I'm looking for, they can do a raised bed garden. So, you can take a whole community center, you can have raised bed gardens at a recreation center, you can have raised beds at some of these continue to live in homes, these assisted living homes, making that they can have herb gardens" (Interview, 3:37).

Agents discussed how urban youth have issues that they can fix within their own communities and 4-H provides leadership skills to tackle those issues. Agent Patrick stated,

"I think it [4-H] provides leadership skills and specifically in urban areas, because basically, we started out with the problem right within their own community. And basically, that the youth would implement a program within their own respective community. So, for example, we did a Healthy Habits program with the [the local YMCA] when I was in [my locality] and there was a group there, long story short called the Black Achievers. And they were trained by basically black by some teens by some 4-H teen officers that I have returned the black achievers to teach younger youth within the

[the local YMCA], daycares, because they have an after-school program there" (Interview, 7:5).

Youth participation in 4-H programs that have a focus on agriculture education can provide youth with skills that can be utilized in their community. Agent Nicole spoke about youth using what they learn to expand education in their own communities. She stated,

"If you were to expand on that, having a bunch of young people who can teach their families how to grow food, especially this past year, that was huge. in [my locality], we had lots and lots of families who lived in apartments, lived in houses had community garden plots, growing food, for food distribution for families who needed them. So having more people competently able to grow their own food, either for their own families or to give to other people was really, important this year. So, I think absolutely, there are concrete ways that being well versed in agriculture can help not just your own family, but your neighbors as well" (Nicole, Interview, 5:34).

Benefits of 4-H principles for Urban Youth in 4-H Programs

4-H principles represent 4-H culture and programming. The principles of 4-H are embedded into programs and curriculum that 4-H delivers. Throughout the interviews many agents spoke about things such as the community, academic, and hands on learning as facets of 4-H principles. The agents also discussed how the 4-H principles apply to youth they serve. Agent Tyler spoke about how 4-H develops confidence and character amongst youth,

"That's what a 4-H is about, we want our youth to display good character, a result of displaying and practicing good character is going to be an increase in confidence. The reality is, is that if you know what you're doing is right, you're not going to hesitate, which is going to lead to more confidence. So, if we can give them the skills to make ethical moral decisions, then that means that they're going to be more confident. So, we do that we talked about and 4-H that the delivery method is not as important as the, the bigger picture. It doesn't matter if it's a kid showing a goat in a show, shooting a rifle, learning about science, none of that really matters. We're not teaching them how to shoot a bow, we're teaching them responsibility, how to practice taking care of stuff, how to be accountable for your mistakes, how to win and lose gracefully, those intangible soft skills are what we're teaching. So, in everything we do, whether we just got done making butterflies, it's not about making butterflies, that's not what this is about, it's about being proud of your work. And of course, this is a very young group. So, their lessons are a little different, obviously. But it's about making sure that everything that we do whatever

my program is, is geared towards those bigger picture things, I can teach any kid how to shoot a bow, and anyone can teach any kid how to shoot a bow, it's not that hard. But teaching them the rest of it's the hard part. And that's where 4-H, I think, excels" (Interview, 2:13).

Developing youths' characters is important within 4-H principles. Agent Judy stated,

"The model of 4-H is to make the better best so we like to instill in the participants that they are already you know, at a level of betterness but they can always be the best at being themselves be the best at being a leader in their schools, in their homes in their community" (Interview 6:9).

4-H programs also support academics with students learning science and using experiential learning. Agent Patrick stated,

"We use the scientific methods. So, for the bridge design, for example, you start out with a problem. And then you work your way down that list, you may sketch out your design, because you're trying to make it across a river, right? That's critical thinking, that's problem solving. And then they may make adjustments from their particular design, they may put it to, they may, they actually may put their sketch together first, and then test it out. And if it fails, then make adjustments. But, using the scientific method would be a part of critical thinking and problem solving" (Interview, 7:12).

Many activities that youth participate in involve the scientific method and use of context that is STEM related. STEM concepts are embedded in numerous 4-H curriculum and programs. One agent stated that,

"Well, almost every program that we put out there, even along with the activities must be research based. So, in other words, like, for instance, summer transportation institute may align with certain STEM standards, and particular grade levels, and mainly High School, right, your sciences, your math, we have to incorporate mathematics throughout that camp as well. Math test, well, math test taking skills for math, we must incorporate that, along with program planning. But yeah, the same thing with aquaponics curriculum, that pertains to the fifth grade. And how water is impacted in its environment. Aquaponics is, but it's basically growing fish, I mean, growing produce with, you know, with the nutrients from, from a fish ecosystem, right from the fish species is then converted to nitrates and then in turn, recycled to the roots of the plant. So, things like that, that align with academic standards" (Patrick, Interview, 7:11).

4-H principles emphasize utilizing processes within 4-H programs that allow for students to critically analyze what was learned. Agent Nicole discussed how the debrief process of programs is intentional to make students elaborate on the prior lesson.

"Yeah, so one of the things I like about four H is the debrief process that we use. So, at the end of the program, you'll go through a couple of questions designed to have us reflect on what they've just done and think about how they could apply it to other parts of their life. So, starting with, what did you do just summarize what happened to think through parts that were difficult parts that were easy parts that were confusing? And then really trying to apply that?" (Interview, 5:12).

Providing curriculum that has real world application that youths can apply to their daily lives is important within 4-H programming. Agents mentioned how teens can easily see a connection between programming and concepts that may apply to their lives. Agent Nicole stated,

"I think once you get into teen programs, sometimes there's a more concrete connection. So, like financial literacy, for example, it's going to help you in your financial management classes, maybe your math classes. I think sometimes there's a really obvious academic connection, content wise, and sometimes it's just the skills of thinking critically and being curious and being resilient that will help you" (Interview, 5:11).

4-H emphasizes "learning by doing" or experiential learning which is commonly termed hands-on learning. This type of learning is seen to provide youth with an unforgettable learning experience. 4-H provides youth with opportunities such as "summer camp, summer, shooting sports programs, hands on programs, livestock shows, things that they can touch and feel. Once again, it has to be a hands-on approach" one agent stated (William, Interview, 3:10). Agent David expressed that "learning by doing is an educational process, whether we know it or not. It's not a traditional educational process. But it's an educational process. So, when you learn by doing, I think kids become more confident" (Interview, 1:7). 4-H principles embed processes and strategies that provide youths with confidence in learning and their abilities to succeed in learning new skills.

4-H principles are embedded within 4-H programming as a guide. 4-H principles guide 4-H models and the way that agents operate within their jobs. Due to 4-H principles agents can provide curriculum to youth that is educational, provides youth with opportunities for leadership and growth within personal skills and provides youth with experiences they may not gain elsewhere. 4-H principles are the driving force of 4-H programs and were developed with the sole purpose of providing youth with an experience that they can utilize in their lives beyond 4-H.

Benefits of Agriculture Education

Agriculture education for youth in urban communities can be very beneficial for those youth.

Agriculture education can help youth understand standard concepts and education they are receiving; it can provide urban youth with opportunities to engage in positive activities and activities that are can be useful for their families and communities. Agriculture education also provides youth with education that can help youth gain interest into agriculture careers. Exposing youth to agriculture education is essential so that youth can understand why agriculture is important because youth will become future leaders who can impact the agricultural system.

When asked if agriculture education is essential for urban youth agent Kate responded,

"I think ag education essential, a lot of students don't understand the whole, I think, when students understand the whole agricultural piece, then they'll understand what's going on around them. So, like, some of our students are just getting into gardening, but they don't understand. They think that their leader is just putting them into gardening. But what they don't understand looking around in their zip code, they're in a food desert. So, your garden is not only you know, just to gain exposure to something, but it's kind of bigger than that, like you only have one grocery, maybe two, or three grocery stores within a 20-mile radius of your home, your zip code. How else would you produce food? So, I think for them, I think we get the right people in place to teach them about ag education, then I think they'll have a better understanding for their environment" (Interview, 4:30).

Agent Judy expressed how urban African American youth can benefit from understanding the value of agriculture. She stated,

"And I think that, urban youth, African American youth if they understand the value of agriculture, it will teach someone the value of land. So I feel like once they understand the value of it, whether it's a small garden, in their schools, on their school's property, or if they all go to a community center after school, and they have raised beds on the concrete by the basketball court, whatever it may be, making that connection even between agriculture, and what they do every day in agriculture expands into agribusiness, and all these other things, once they get exposed to it on a small scale, it will open up their minds to what is agriculture on a larger scale" (Judy, Interview, 6:30).

Personal benefits of agriculture education are also seen in agents' responses. Agent Judy discussed personal benefits of patience and learning that instant gratification is not favorable. In her opinion agriculture education "teaches them [youth] how to endure ... just knowing that whatever seed that you've planted, into the ground, it will yield harvest eventually, but you must nurture it, you have to work at it, it definitely teaches them responsibility. And just patience" (Judy, Interview, 6:29). Agent William spoke again about patience and teaching youth about the lack of instant gratification involved in work such as agriculture. He feels that students can learn non-tangible skills from engaging in agricultural tasks. He stated,

"Yeah, because ag is money. I don't want to just teach you [youth] math. In the classroom, I want to show you [youth] that this ear of corn may cost \$1. But this seed right here is free from that corn. So, you [youth] just pay maybe for a row of seeds, let's say you did \$5, now you're going to sell that ear comb, make \$1.25 you're going to make your money back. But then you [youth] still don't have to buy any more seeds. Because now that corn produce seeds. So that money that you [youth] invested one time, you don't have to invest again, we have to teach children how to invest time. Because that's what it is when you say agriculture is you invest in a lot more time. But you can make a lot of money. But it takes the time. So, teaching them [youth] a lot of patience. And a lot of children may not have patience, just because we're in a society where they can push a button and get it right then and there. That instant gratification. But with farming and being in nature, you're not going to have instant gratification. It comes with time and being patient. And that's what a lot of young people will have to learn. But also, it comes with setting a plan" (William, Interview, 3:36).

Not only is agriculture education important for personal growth within youth it is also important for professional growth. Through agriculture education youth can learn about diverse agriculture careers. Agent David stated,

"So, kids need to dig deep and understand what they're getting into as relates to agriculture and find your little niche within agriculture. If you're not excuse me if you're not an outdoors person, that doesn't mean you can't work in agriculture, because you can work in the financial business aspect. There's a young man that graduated from [university] some years back. And he graduated and went out and made a lot of money because he was skilled at building golf courses. That's a part of agriculture graduate program from the College of ACES at [university]. And he's probably, I would guess, doing well right now, because he understands agriculture at a high level. So oftentimes, we think I won't do that because we think of farming and gardening yet as part of but that's not just part of. So, it's important for kids to dig deep and understand really what that industry is about College of ACES at [university] can really get you a deep credible education as relates to agricultural consumer and Environmental Sciences" (Interview, 1:26).

When asked if agriculture education is essential for urban youth agent Judy responded,

"Yes, ag education is very essential because I'm considering everything that is going on. In the world, as far as farming, as far as food production, they will be future farmers, they will be future food producers. At least that's my expectation. So, for they need to have, it's very important for them to understand where food comes from, how to grow food, how to sell it, how to, you know, work land, how to even be a business manager, as far as agriculture is concerned, because that's a part of our future. And if we only have a small amount and is only limited to a select group of individuals that know how to do that, it's a disservice to our county and our state. So, I think it's very important for them to learn because it could be their future career opportunities, and that would benefit everybody in the long run" (Interview, 6:27).

Serving the community is important aspect of agriculture. With community gardens and small farms, communities can service each other through the agriculture system. Agent Judy expressed how,

"Agriculture education is about production, and it's about providing and the good thing about agriculture and the harvest of it is that if you if you do it right it's enough to go around for everybody. I think that teaches participants that sense of community" (Interview, 6:28).

Agents also emphasized how agriculture is important for living it is the driving force of human life and without education students will not understand how connected agriculture is to their lives. Agent David discussed,

"Kids need to understand the world revolves around agriculture, adults and youth need to understand the world revolves around agriculture, agriculture is probably the highest commodity that we have in this world, right thing begins and ends with agriculture. So, our kids saying that they need to understand that it's not about the store, primarily, it is, but it isn't. And then understand that everything that you do, whether it's business, and whatever it is, in your whatever your endeavors are to inspire, to aspire to, revolves around an agricultural knowledge" (Interview, 1:17).

Agriculture education provides youth with benefits that youth can utilize to be successful within their education and careers. Personal benefits of agriculture education include teaching youth responsibility, value of agriculture, and teaching youth how to utilize agriculture to enhance their communities. Societal benefits of agriculture education include preparing youth for careers within agriculture.

Theme 3: Challenges

This theme explores the challenges that agents encounter within 4-H programs that make it difficult for urban youth participation within agricultural educational 4-H programs. Within this theme a category was developed entitled challenges. The category addressed challenges to connect urban youth to agriculture and challenges with 4-H programming. Challenges for urban youth participation in 4-H programs are varying. Some challenges are due to funding, some due to locality, lack of resources, and some due to structures of participation in 4-H programs. Agent Patrick spoke about how reaching untraditional audiences is an issue for 4-H programs. He stated,

"We have a lack of that [going into communities of non-traditional audiences], in general in extension because most of the people that come to the programs are traditional audiences, you know, their family, their family members, who've been in 4-H forever, and family members have been agriculture extension forever. They've been in almost every program forever. So, if we see if we recycle the same families, we really aren't reaching those underrepresented groups, right? Like we were reaching the same people" (Interview, 7:23).

Urban audiences usually lack common knowledge of the connection to agriculture to their daily lives because agriculture is not commonly seen in the environment or taught to youth in urban areas. Agents spoke about challenges to connect urban youth agriculture. Agent Judy said that

"I am finding is that it's hard to get children who do not, who have not traditionally grown up on a farm near a farm is hard to get them to make that farm to table connection. It's kind of hard to get them to understand the importance of agriculture" (Interview, 6:24).

Solutions to connect urban youth to agriculture is exposure and "getting over the hump of taking those non-traditional students who don't come from farming families who don't live in rural areas, and getting them to understand the importance of agriculture, in as many facets" (Judy, Interview, 6:26). Disconnection with the school system also can be a challenge for youth participation. Agent Kate expressed that a "lack of communication and connection between the 4-H program in our school system" leads to a lack of focus on academics within programming (Kate, Interview, 4:8). Lack of resources at home that reflect resources within 4-H programs is another common issue discussed in agent responses. Agent William stated,

"Young man might be doing shooting sports or young women might be doing shooting sports. And then they don't have guns at home. You see what I'm saying? And they don't have parents who may be teaching them, they have some volunteers doing it. So, you don't have that reinforcement at home. Now for our counterparts. Yeah, that's what they do. They shoot guns, they've been doing it since like coming out of the womb. So that's in their environment. That's what they do. Same way, if you're saying that you want to show an animal, but they farmers, they've been showing I'm going to in the city, you say, hey, I want to show animal. Well guess what you might be living in a confinement of urban

area, or more of a city area where you got certain restrictions, you can't have livestock, you can't do turkeys, or you can't do chickens, you can't do cows" (Interview, 3:12).

Lack of resources are also seen through lack of access to farm and land where agriculture happens. Agent Patrick understands that many urban youth "don't have access to an acre of land, or a half an acre of land or anything over that most of them are living, in a, you know, a townhome, or, in a close community and close quarters" (Interview, 7:26). Funding for under resourced populations is also spoken about in agent responses. Agents spoke about how paying for participation in 4-H programs are an issue for some youth.

"In terms of funding, they received in terms of funding, they received more resources to deliver programming. So sometimes that's a hindrance for historically black colleges or for people who are trying to reach limited resource families, right? Because they may not be able to pay for programs like traditional 4-H camp that costs \$400 or \$500. But it's easier for agents, to develop, or to recruit kids for 4-H camp who can afford it, right? Oh, yeah, you know, I just paid for that. But not so much for a family who, or for someone to come from a single-family home, or for those whose father that might be incarcerated a mother who was incarcerated, or who's in a group home or, you know, things of that nature. So, I feel that it makes it much it makes it much more difficult to reach those audiences for that reason" (Patrick, Interview, 7:17).

Dealing with the structure of recruitment into 4-H programs is often an issue for agents to gain participation from non-traditional urban youth. Agent Kate spoke about paperwork and how it can be a hinderance to youth participation. She stated,

"Or I might have to go to school. Because of course with 4-H you have a lot of you know, red tape and a lot of paperwork. And you might not get the paperwork. So do you stop working with the students if you can't get the paperwork back, or you're trying to meet them where they are, where you don't have to have customer care with them" (Interview, 4:24).

Overall design of 4-H programs can cause challenges for youth sustaining engagement in 4-H. Agent Nicole discussed how the community orientation to some 4-H programs that requires parents to drive students is an issue. Nicole stated,

"I don't think 4-H across [my state] does an especially good job of reaching minority populations. I think, [my state], 4-H is still oriented more towards that community club model that requires parents that are going to be able to drive their kids and sign them up and come for years. I think those programs work well and are really impactful for the kids who can participate. But I think a lot of kids cannot participate" (Interview, 5:17).

Agent Nicole also speaks about how the design of six-week programs can present a challenge to youth participation. She stated,

"One of the drawbacks of our model of these six-week volunteer led programs is that six weeks is not very much time. So, some of the kids will sign up for you know, fall six-week program, winter our six-week program spring six-week program, so you're seeing them multiple times. But it's also possible that we have kids who only get one six-week experience. And that's not a helpful amount of time to really develop, you know, the leadership and the life skills and the academic skills that we want those kids to have" (Nicole, Interview, 5:23).

Challenges to connect urban African American youth to agricultural programming is even more difficult due to a lack of equal opportunity for African American youth. Agent Kate stated,

"I feel like national 4-H could do a better job. And really preaching, practicing what they preach as old folks, like say, we do talk about lack of equal opportunities. You know, they do try to make sure they're reaching specially like Black History Month, like this year, they did some black fisherman stuff but, they could've done a better job, you know, in highlighting black history man. And I think that they need to do a lot of education with certain groups, because a lot of our 4-H groups are conservative, Christian, led groups, and they feel as if that it's their own inclusive club" (Interview, 4:35).

Serving underrepresented youth through 4-H has historically been the job of 1890 universities. Since 1890's are universities built to service minorities many faculties prioritize serving African American and other marginalized groups. Agent Patrick spoke about the fact that equal opportunities within 4-H programs he said that "predominately white institution received more resources for so long" making it difficult to engage minority groups into 4-H programs (Interview, 7:15). 4-H programming also differs depending on where the program is being run and who is delivering the program. Although some agents run programs inside of schools some

agents lack a connection with the school system. Agent Kate says within her program and county there is "a lack of communication and connection between the four H program in our school system" (Interview, 4:8). During the focus group interview agent Nicole expressed how 4-H is not widely known in the urban area that she serves. She stated that there is a challenge in getting people to know that 4-H is present in her area. Nicole stated, "people don't really know that we're here, they don't know how to sign up. It's, the awareness is not there" (Interview, 22:25). She discussed design principles such as marketing 4-H programs on social media and taking programs directly to youth.

Theme 4: Utilizing Culturally Relevant Pedagogy Facets

This theme explores how utilization of processes and strategies that align with CRP facets can be useful in developing and delivering successful 4-H programming for urban youth. Culturally relevant pedagogy is a theoretical framework that prepares educators to provide equitable education for all students (Ladson-Billings, 1995a). CRP challenges educators and their ability to produce academically successful students. Ladson-Billings developed culturally relevant pedagogy to address gaps in theoretical frameworks such as culturally responsive teaching. Within this theme two categories were developed entitled (1) how to engage African American youth, and (2) relationships.

How to Engage African American Youth

It is essential for youth to witness people who share similar backgrounds as them, teach agricultural concepts. Seeing people who share the same experiences or come from similar locations within agriculture is important for African American youth. Agent Tyler spoke about

how important it is for African American males to witness other males from the same background lead 4-H programs he stated,

"So, we need our young African American males to have an African American male leader in the 4-H program because, of course, you want diversity, but it's important that the person you are learning from and following looks like you which is a weird thing to say when we think about, you know, equity and inclusion. And that's not saying anything that's not like that is doomed to fail. But it's important to see people in your life that are successful that look like you I mean, that's just a psychological need" (Interview, 2:11).

Agents noted that agents must be a part of the community they are trying to build so that youth can be encouraged to follow behind 4-H volunteers or agents and desire to stand in their positions in the future. Agent Kate mentioned how 4-H needs improvement from a national level to increase diversity within 4-H representatives. She stated,

"They can do a little bit more, as far as representation. And this is across the board with hiring, recruiting, diversifying their work clientele, because depending on which program you look at, you might have an all-white program in 1862, where all your specialists are, you know, Caucasian or something other versus 1890 where your status are African American or diversified. So, I think they need to do a better job at hiring on both levels. But I think communicating on those levels as well" (Interview, 4:18).

She added to her response by stating, "So, but I would definitely say they can do a better job with hiring more diverse agents and specialists across the board to kind of work with urban youth" (Kate, Interview, 4:16). Agent William added to Kate's idea he noted,

"The biggest thing to help 4-H in more urban areas, you got to have the right people working. And that means you got to have people that understand the community understand that environment and understand the mission and vision and goals. And it goes beyond what they see on paper. You got to know the environment, you got to know the community, you got to have a heart for this thing. If you don't go do numbers, or go do some accounting, but don't do people because you're not going to do anything, right.

So, you got to have a heart for this position. And you got to have some people skills"
(William, Interview 3:40).

Agents can prioritize providing access to African American youth to participate in 4-H programs. Agents have the autonomy to write grants for funding, recruit students in diverse communities, and frame programming in a way that is relatable for urban African American youth. Agent Nicole takes matters into her own hands she stated,

"I'd rather prioritize my programs in [my locality], where we have higher populations of African American youth, but also Hispanic youth. We have over 100 languages that are spoken in [my locality] public schools. It's very diverse, and lots of recent immigrant communities there as well. So, overwhelmingly, lower income, and the folks who I think could benefit from our program more and probably have fewer alternative options. So, my program takes volunteers into right now we're doing a program with AHC which is one of our affordable housing companies. So, they have kids that are there in summer school, our volunteers come in, we lead a one-hour nature club for six weeks, work with our kids work with their staff' (Interview, 5:20).

Agent Kate also spoke about prioritizing minority youth participation in 4-H programming through funding. She stated,

"So luckily, for the past two years, we have been given a grant for working with certain students that fall in that diversity and inclusion group that were able to go, but that funding might not always be there. So, you know, we do what we can do to maintain a funding source to keep them involved in programming" (Kate, Interview, 4:20).

This quote addresses the reality that 4-H programs are often marketed as a program for all youth, but many youths do not have easy access to participate due to funding or locality issues.

Participants also noted that modifying 4-H curriculum to support audience is an important process in getting urban youth into agriculture. Participant David stated that,

"Well, every program is different. When you have children of color, you must make your lessons and your curriculum, applicable to that group that you're working with. So, each time it's different for each group, each audience, because what may work with one group

may not work with the other. So absolutely, flexibility is part of what we do and extension not just in [my locality] but also in other parts of the state. When you have children of other races, ethnicities, you must make the experience as applicable to what they've experienced. And all of us thinking, so from an African American standpoint, I can talk about situations with the police, because I've experienced, so when I when I talk to a child that maybe African American, I can relate to what they may be feeling. Now I can also tell them how it is the best approach a police officer if stopped by police officer. And so those are things that I can personalize because I'm an African American man. And same with you know, African American females as well. Being a black person is first and foremost before your gender. And so, you need to make sure that you're doing all the things that you need to do to be safe, and that you at the end of the day, get back home to your family safely. So yes, we modify curriculum activities and all the above based on the audience that we're serving at that time" (David, 1:15).

In this data we can examine that David expressing that agent must connect to the backgrounds of the youth being instructed when delivering programming because diverse audiences have diverse experiences. Agents also spoke about bringing 4-H programs directly to urban youth so that youth participation is easily accessible for all youth. Agent Nicole stated,

"But in [my locality], we do a pretty good job of bringing programs to kids. So, 4-H a lot of other places requires that parents or family members or whoever, drive their kid across town after work on weekends to participate. And that assumes a certain level of resource and knowledge and interest in time and is create some additional burdens on families to have their kids participate. In [my locality], we don't do that we bring programs to after school sites. So, the kids finished with their K through 12. School Day, they're enrolled in extended day, many families are if those kids are, so they go down to the cafeteria of their school, they're checked into that program, and then four h sends volunteers in to work with those kids in that space" (Interview, 5:2).

Bringing 4-H programs to urban youth provides urban youth with exposure to 4-H programs instead of assuming urban youth are exposed to 4-H programming. Agent Nicole also responded,

"But the group we did in the fall was all African American, largely, I think, Ethiopian immigrant families. So, we come to them, give them the program, they've never heard of 4-H before. Some of them have heard of [land grant university] before, but not all of them. And so, we're able to bring it directly with them. And they don't have to seek us out. Which I think especially in urban communities, 4-H is not a strong brand. So, you're not going to get a lot of people saying I'm super excited to sign up for 4-H they're like, what is 4-H, there are no cows here, like what are you doing? So, bringing programs directly to those youth and specifically working with partners sites, where there's going to

be a higher population, higher percentage of students on free and reduced lunch, a higher percentage of African American youth Hispanic youth, recent immigrant youth" (Nicole, Interview, 5:21).

Her response indicates that urban youth do not have resources available that makes 4-H programs accessible and sought after within their communities. She notes that as an agent she is responsible for providing urban youth access to 4-H programs. Agent Nicole also stated,

"That is the most concrete way in which we directly work with those students. It's sort of in the framing and the development of that program, we set ourselves up to be in a position where we can work with those youth, as opposed to the more traditional audience of 4-H programs that upper middle class white population" (Interview, 5:22)

Bringing 4-H programs directly to urban youth is something that some 4-H agents felt they are successful in. "We're just making sure that we are meeting people where they are" stated agent Tyler (Interview, 2:5). Agents also emphasized the need to "go where they are don't wait for them to come to you" (William, Interview, 3:21). Agent Nicole's program focuses on bringing 4-H directly to youth through the school system in the community. She stated that,

"It's free for them to participate. The families don't have to sign them up. You don't have to drive them; they don't have to do any forms. So, it makes it easy. And I think as a result, we get much better participation from folks who otherwise would not be able to participate in that traditional community club model" (Nicole, Interview, 5:3).

Agents also noted that 4-H as an organization has made progress in targeting nontraditional audiences and involving youth from urban areas into 4-H programming. Agent Judy responded,

"4-H has expanded as far as targeting rural youth, those youth who are traditionally involved in 4-H, and our parents are involved and 4-H, they live on a farm or in a rural county. I think 4-H has done a good job at expanding to suburban and urban areas and targeting those audiences that are not traditional so those students who have never heard of 4-H don't know what 4-H and just getting them acclimated to 4-H and the different core content areas that 4-H offer" (Interview, 6:4)

Culturally relevant pedagogy facets can be utilized within 4-H programming to engage African American urban youth. Educators can assess their programming with a lens of CRP facets to ensure that African American youth feel related to curriculum, comfortable with educators, and have access to programming. Agent Kate mentioned in the focus group interview that agents should be intentional about delivering information to youth instead of assuming youth have knowledge about 4-H or the content they are learning. She believes that 4-H programming should take steps to ensure that students have stake in program activities before immersing them into the program. She stated that, "Well, it's the bad culture in 4H just to assume that you know exactly everything that's going on, we actually don't. And I think that's an expectancy kind of, and it trickles down into your program" (Kate, Interview, 33:51). She emphasizes the idea of agents "breaking it down... and to taking a step back" to ensure students feel value in participating (Kate, Interview, 33:51).

Relationships

Building positive relationships is one of the things that make 4-H programs successful. Youth build positive relationships with peers and adults while engaging in 4-H programs. Agents also utilize relationships as leverage to gain recruitment for their programs and to gain exposure in communities. Partnering with youth organizations allows for agents to reach youth who may already be a part of other existing programming. Agent Tyler knows that partnering allowed 4-H to expand their reach he stated,

"I think that's the most important thing that we have to do is working with like, because I mean, 4-H is a big organization, but we can't reach everyone, right? So, working with the Boys and Girls Club and the YMCA and Big Brothers and Big Sisters" (Interview, 2:7).

Tyler also expanded on his response by stating that, "it's just about really talking to people forming connections and recognizing the limitations of your programming and finding partners to enhance it" (Interview, 2:10). Agents emphasize being present and available to organizations where youth can be impacted by 4-H programs. Agent William noted,

"So, it hasn't been just boots on the ground it has been kind of me building relationships with the schools and the teachers and trying to let them know I'm here. So, when doors started opening, I was able to get into the schools more. So right now, is the summer camp that the community college is leading. And I found out about, and I said how can I help? So, for me, I'm going in visiting programs and not trying to take over. I'm trying to say, hey, this is the resources we have, how can I help? I don't want your program; I want you to know that I'm a tool for you and your program. And so, the approach must be that way. every county is different, you know, some counties, we serve a lot of rural areas. So, it's a different mentality that the agent has to have in the city, you might have to go to the YMCA. You may meet with the Girl Scouts and the Boy Scouts. I meet with the Rotarian clubs, I'm meeting with several organizations that also have youth organizations, you have fraternities and sororities that have youth organizations, that's another way for you to tap into that resource and build those relationships" (Interview, 3:25).

Developing community relationships was emphasized in agent responses. Agents spoke about how connecting with community organizations and individuals is beneficial for building strong 4-H programming. Agent William noted that agents should ask questions such as,

"What are you doing who you're with? And are you networking in community? Are you going to community meetings, the functions, introducing yourself and aligning yourself with the rest of the community, that's where it takes it takes the 4-H Agent and takes the people in the office? And it takes them the willingness to want to do it. Some people just get it in a position. And they don't really be about the people, they'll be about getting a check" (Interview, 3:24).

Agent Judy spoke about the importance of building relationships with participants and parents of 4-H programming. Relationships with agents can make youth feel comfortable and included within programming. She stated,

"I like to be very visible in my community and community events. I've talked to parents, I've talked to students to try to get a better understanding of what their experiences lives

on that like, no matter where they're from, whether they live in a heavily urban populated area or a suburban area, I like to get to know them in their families for who they are, I try to be very intentional about where I conduct programming. So, for the most part, it's in the central locations of the city" (Interview, 6:19).

4-H agents also build relationships with teachers to reach youth in the school system. Agent Tyler stated that "we just work with teachers and other professionals in the field and ask them what they think the needs of their students are" (Interview, 2:34). When asked how he connects urban youth to the 4-H experience, agent Patrick stated,

"I connect with a lot of teachers and training them in our curriculum, because a lot of teachers really don't know that they have us as a resource, and can bring the youth there, you know, to, specifically to our center for various programs to in our center, we have a music studio, we have a media lab where they can learn about video production, we have a STEM lab, we have a grow lab where they could do aquaponics. I train them, you know, teachers, community members, in our research-based curriculum. You know, to kind of disseminate that information and, and pro curriculum that we have with the youth. Another thing I've done in the past is invited, you know, other youth organizations to various training, like to robotics training, that's something else that we focus on the STEM related, you know, training their coordinators, or their, their volunteer hours by using our resources, and they can check them out too. Let's say if they have a program of 15 kids, they can check out as many as many robots that we have available First come first, serve. Or sometimes they may want us to come and speak to their kids about a particular topic in the community. We're available for that as well" (Interview, 7:21).

Relationship building is seen to be a value of 4-H agents and the work that they do. Agent David stated,

Simply just being more present beyond the traditional work hours was just trying to be as present as possible, supporting kids, any event outside of 4-H, I think that would be a start for me as being help and support those children outside of the traditional for each audience or event, or curriculum or class or whatever. Just being more present. Showing that hey, I care. And I'm going to show you I care because I'm not just here because this is a 4-H event or not a 4-H event, man. I'm here because this is an event and I want to support you person (Interview, 1:16).

Within this subcategory agents emphasized the importance of strong relationships with youth they serve, parents, and collaborators. Relationships was emphasized throughout agent responses and agents expressed how relationships are important within their roles as 4-H agents.

Chapter Five: Discussion and Conclusion

The purpose of this research was to capture 4-H agents' opinions and experiences within urban 4-H programs; to assess whether those agents felt that 4-H programming and agriculture education was supportive of urban student academic success, developing cultural competence within urban students, and developing critical consciousness within urban students. It was also key to capture 4-H agents' ideas about design principles of 4-H agricultural education programming for urban youth. The purpose of looking at design principles of 4-H programming was to assess the ways that 4-H programming can be designed so that non-traditional youth can successfully engage in the programming. The results of this study help to contribute to the design of culturally relevant 4-H programming for all youth but especially urban youth who identify with marginalized racial groups. The results of this study also help to contribute to 4-H programming being more widely implemented in spaces such as urban schools and urban communities.

Within this research it is evident that 4-H agents notice that 4-H programming is designed in ways that is more accessible to traditional audiences such as white youth who live in rural areas. Urban African American youth are more commonly disconnected from 4-H programming because of their perception of agriculture. Negative perceptions of agriculture usually stem from youth only linking the "adversities associated with farming instead of viewing it as an honorable profession as their ancestors had (Morgan, 2000). Urban youth also do not have much contact with agriculture; "the consumption of food is the primary contact that many minorities have with the food and agricultural sciences" (Wiley, 1997). The lack of agriculture education within urban communities mixed with urban youths' negatives perceptions of agriculture means that 4-H agents must utilize new approaches to connect urban youth. Utilizing practices from Gloria

Ladson-Billing's culturally relevant pedagogy theory can "prepare educators to provide equitable education for all students" (Ladson-Billings, 1995a). Since 4-H is an educational program for youth using the lens of Ladson's CRP theory would be useful in findings strategies to successfully engage African American urban youth. While also redesigning 4-H programs so that more urban youth have access to participate in 4-H programs. Limitations of CRP is that the framework was developed with a focus on teachers in formal settings such as school classrooms. However, for this study the focus is non-formal educational programming such as 4-H, the structure of program access is considered as an additional piece that educators can identify to engage youth. The findings of the research indicate strategies that 4-H agents utilize to engage urban youth in 4-H programs, challenges within 4-H programs, solutions for design principles of 4-H programming, and overall, 4-H principles that are both successful and unsuccessful in engaging urban youth. Findings also show that 4-H programming objectives, processes, and strategies vary based on agents and the locality of the programming. Agents expressed that their priorities within their programming varies based on the needs of youth they serve and their capacity as agents within their locality.

Discussion of Findings

Discussion of findings will focus on the three research questions in connection to the three culturally relevant pedagogical facets. The discussion will cover the strengths and weaknesses of the culturally relevant pedagogy facets for 4-H programming and agricultural education within 4-H programming. Design principles for urban 4-H programming will also be discussed.

1. In what ways, if any, do participants perceive 4-H programming as supportive of youth academic success, developing cultural competence within youth, and developing critical consciousness within youth
2. In what ways, if any, do participants perceive agricultural education as supportive of youth academic success, developing cultural competence within youth, and developing critical consciousness within youth?
3. From the perspective of participants, what should design principles for urban 4-H agriculture programming include to ensure that it is supportive of youth academic success, developing cultural competence within youth, and developing critical consciousness within youth?

Academic Success

Ladson-Billings defines academic success as "intellectual growth that students experience as a result of classroom instruction and learning experience" (Ladson-Billings, 2014). Participants in the study expressed academics as a part of 4-H programming by agents utilizing curriculum that is research based and developed from 1862 and 1890 universities. Although all 4-H programs are not focused on traditional academic subjects and 4-H programs do not typically measure academic success. Some participants expressed that academic is embedded within their programming so that youth can learn unconsciously while participating. 4-H is a program that holds the principal that "youth learn by doing" and that "hands on learning" is vital to youth development (History of 4-H, n.d). Ladson discussed ideas that academic success is not limited to standardized assessments and test scores but overall intellectual growth of student skills such as writing, speaking, and ability to pose and solve problems (Ladson-Billings, 1995). 4-H curriculums such as "Chick Quest has been utilized in urban elementary schools to teach students STEM skills that meet science standards while engaging student in experimental science

curriculum" (Horton, Krieger, & Halassa, 2013). Agents expressed that science, math, and reading concepts are learned by participating in some 4-H activities. All agents agreed that science is embedded within 4-H program through a focus on STEM activities. Through educational enrichment programs in school systems that are within the locality that agents serve, agents can deliver programming that reflects educational concepts students are already learning in school. Many agents expressed they have a relationship with teachers and school administrators so they can go into schools and access youth. Although agents are educators, they are not teachers, and some agents expressed that academic are not a huge part of their programming. The idea of academics within 4-H programs is not consistent across all agents within the study. Some agents expressed that they do not feel that 4-H equips students for academic success because a lack of capacity to teach academics. Agents expressed that they are not able to connect with the school's system or work closely with teachers to ensure that youth are receiving academic concepts through 4-H programming. The data showed that agent's perception about academics being embedded within 4-H programming is diverse and varies amongst agents. This shows that there is inconsistency within 4-H programs and within the priorities of 4-H agents.

Agents expressed that agricultural education is supportive for youth learning agriculture and understanding how they can fit into the world of agriculture. This is consistent with Henry, Talbert, and Morris's (2014) findings that agricultural education gives students different ways of looking at science while breaking student stereotypes of agriculture. Agents did not express how agricultural education is supportive for academics. Although research has shown that the curriculum of agricultural education has improved the achievement of basic science and mathematics process skills of students (Mabie & Baker, 1996).

Cultural Competence

Cultural competency "refers to the ability to help students appreciate and celebrate their cultures of origin while gaining knowledge of and fluency in at least one other culture" (Ladson-Billings, 2014). Developing cultural competence through 4-H programming was not found within participant responses. Development of cultural competency amongst 4-H youth may be a difficult task especially if agents who are delivering programming do not share the same culture or recognize the culture of youth. Agents must be aware of youth culture and how it effects the way youth chose to operate and participate in programming. Agents do not have a lot of capacity in their work to change programming to fit student culture, systems, and structures to make sure diverse youth cultures are reflected in curriculum should be noted at the state level and amongst 4-H specialist who develop curriculum. Participants did however discuss that they work to "stay culturally relevant" when working amongst youth (Judy). Participants expressed developing relationships with youth and going into their communities are strategies they utilize to connect with youth who reflect cultures that are not commonly involved in agriculture. One agent who is not African American also emphasized the importance of recruiting volunteers who identify as African American or Latino so that youth cultures are reflected and included in 4-H programming. Cultural competence within 4-H programming is essential for urban African American youth participation because 4-H programs were initially developed "with a sole purpose of helping rural youth connect to agriculture" (4H History in Brief, n.d). African American populations were not included in the early development of 4-H programs but today many African American youth participate in 4-H programs and their culture must also be reflected within 4-H programming to ensure that these youth feel included. Previous research has shown that African American youth have had to deny their cultural integrity while participating

in educational programming (Ladson- Billings, 1995a). Previous research has shown that educators have incorporated aspects of students' cultural backgrounds into educational instruction which has helped students succeed (Ladson- Billings, 1995a). Research from Jordan (1985) indicates that "educational practices must match with the children's culture" while also utilizing students' "natal culture as a guide in the selection of educational program elements" (p. 110).

Agents did discuss agricultural education supporting cultural competence for African American youth by connecting them to their historical roots in agriculture. Agents discussed how it is important to explain to African American youth that their ancestors were deeply involved in agriculture while also explaining to youth that farming is not the only opportunity within agriculture.

Critical Consciousness

Sociopolitical consciousness as "the ability to take learning beyond the confines of the classroom using school knowledge and skills to identify, analyze, and solve real-world problems" (Ladson-Billings, 2014). Elements of development of critical consciousness was emergent within the data but not directly found within the data. As studied by Rowell (2020) exposing youth to normalized inequalities and critical consciousness concepts can help youth develop emerging socio-political awareness of societal issues. Rowell study indicated that intentional design of programming in spaces that allow for the development of "critical consciousness "can lead to youth "making change in their own communities (p. 74)". Agents discussed elements of critical thinking, but agents did not discuss how concepts of agriculture connect to social issues of equity, injustice, inclusion, and equality. Agents did discuss developing community gardens to address food deserts as a starting point which can be utilized

to develop critical consciousness within youth. However, agents did discuss that 4-H principles and curriculum embed critical analysis skills. The critical analysis skills that are provided through 4-H curriculum in 4-H programming could be developed in a way that is satisfying of critical consciousness. Agents can connect concepts of community gardening to issues of access and equality within communities to foster a deeper understanding of how agricultural concepts relate to youth lives. Within 4-H programs youth can learn connections between access to healthy foods and health disparities. Critical consciousness is emergent in 4-H programming but intentional design of curriculum and programs to successfully teach concepts of critical consciousness should be considered.

Design Principles

Developing design principles to address culturally relevant 4-H programming for urban youth was an important piece of this research study. Agents identified design principles that are useful in successfully engaging urban youth into 4-H agricultural educational programming. Agents emphasized exposing urban youth to agriculture as an important design principle because of historical reasons these youth are disconnected from agriculture. Providing youth with power to inform design of 4-H programs and collaborate with 4-H officials was another design principle mentioned by agents. Agents discussed the idea that giving youth a seat at the table is the best way youth voices are heard and included.

Participants noted that involving youth in the planning process is a positive strategy for youth to include their cultural stance within 4-H programming. By involving youth into the planning process agents expressed that youth could incorporate practices and principles that are important to their lives and experiences. Allowing youth to have stake in planning of 4-H programming is also useful for youth learning organizational skills, leadership skills, and lifelong

skills that can be utilized outside of 4-H programs. Engaging community leaders that reflect the culture of youth was also a principle that agents discussed. As research from Ladson-Billings suggests (1995a) educators within 4-H can improve their teaching strategies by ensuring that their "teaching can better match the home and community cultures of students of color" (Ladson-Billings, 1995a). Lack of resources and equity was discussed in the data. Participants noted that an increase of representation of African American agents is another design principle that should be addressed for 4-H programming. One agent explained that equity within 1862 and 1890 institutions does not exist which makes an issue for the current design of 4-H programming.

Agents discussed that building strong community relationships where youth and parents have personal relationship with 4-H agents is a design principle that is beneficial for youth sustaining engagement in 4-H programs. Participants noted that youth who have personal relationships with adults and peers in the programming are more likely to return because of those relationships. Assessing the curriculum, and design of delivery mode of 4-H programming was also discussed amongst agents. Issues of access of 4-H programming was discussed in connection to delivery mode because some 4-H programs are difficult to access for students who parents work hours coincide with hours of afterschool programming which makes it impossible for students to reach programming. Agents discussed how connecting with schools and other youth organization should be a design principle for 4-H programming to ensure equitable access for all youth.

Intentional marketing of 4-H programs was another design principle that agents mentioned to reach diverse audiences of youth. Agents mentioned that in many areas people are not aware of 4-H presence. To ensure that agents are connecting with youth in today's society

marketing 4-H programs through social media is an innovative way to reach youth especially urban youth who may not hear about 4-H in their communities.

Recommendation for Practice

The findings in this research suggests intentional strategies are needed to address engaging urban African American within 4-H programs. Findings indicate that while agents utilize varying strategies to successfully engage urban youth who may be disconnected from agriculture and 4-H programs into programming, challenges still arise from the overall structural design and delivery of 4-H programming. As for 4-H agents, specialists, and administrators from national 4-H should consider redesigning their programs with a lens to find strategies and systems that engage urban African American youth. These same stakeholders should also enact CRP as a framework for practice within their organization. Culturally relevant pedagogy can help 4-H educators ensure they are being inclusive to minorities with agriculture while also ensuring that youth are gaining academic skills, critical consciousness, and cultural competence. 4-H agents should study practices of CRP within their organizations by hosting workshops and collaborating with scholars such as Gloria Ladson-Billings who have emersed their life work into developing theories as such. 4-H agents should also consider collaborating with community youth organizations, and school systems, and other institutions that engage youth in urban areas to expand their reach of including urban youth. Networks between 4-H programs and school systems should be placed in areas where 4-H offices are not located to again ensure that 4-H is doing its best to reach all youth. 4-H programming is a nonformal educational programming and should have a presence in after school settings, community centers, and other community

institutions. 4-H overall as an organization should also recruit, hire, and sustain more diverse populations of agents and specialists.

Recommendation for Future Research

In the future, I would recommend that 4-H programs again be evaluated to assess strategies and methods to engage urban African American youth with a lens of culturally sustaining pedagogy (CSP). Culturally sustaining pedagogy allows for a fluid understanding of culture, and a teaching practice that explicitly engages questions of equity and justice (Alim and Paris, 2017). Utilizing CSP can help agents address that culture is dynamic and everchanging. Participant Judy agrees with CSP idea of culture as dynamic she says as an agent, she makes effort to connect with youth and understand their culture. Culturally sustaining pedagogy has a "political edge since students of color often are members of groups that have been politically shortchanged" (Ladson-Billings, 2017). This is important for engaging urban African American youth and ensuring that they gain valuable experiences within 4-H programs. Future research should also include urban youth who participate in 4-H programs to assess their opinions about structure of programming, outcomes of participation in programs, and inclusion, diversity, and equity within programming. Future research should also include 4-H stakeholders from national level to assess how they are handling diversity and inclusion efforts within 4-H programming.

Conclusion

Although urban youth are benefiting from participating in 4-H agricultural education programming improvements to successfully engage urban African American youth into programming and connect youth to agriculture are necessary. Urban youth are commonly disconnected from agricultural education due to lack of connection to agriculture, but 4-H programs can be utilized to bridge the gap. This study explored 4-H agents' perceptions of 4-H

programming and established agricultural literacy outcomes to identify potential design principles for culturally relevant agricultural education in urban classrooms, after school programs, and 4-H programs.

The 4-H organization consists of varying levels of operation. Within this study, 4-H is discussed by participants as an entire institution, as individual programs that are located in varying counties throughout states, and as a program planning process that is done by stakeholders within the organization. For the purpose of this research 4-H programming is defined as programming that is delivered by 4-H agents in diverse localities and settings. 4-H organization is defined as the institution of 4-H as an entire entity which includes the National and county levels of 4-H organization. Within the research, 7 agents from varying states were interviewed, the agents discussed how 4-H as an institution must be evaluated on the macro and micro level to address issues of diversity, equity, and inclusion. Within the research it was found that there is a variation of practice within 4-H programs. Agents spoke about challenges within 4-H programming such as gaining participation of diverse youth, representation of diverse youth cultures within 4-H programming, and lack of resources for 4-H agents and youth. During the interviews agents prioritized diverse strategies, curriculum, and delivery modes within their programming. Although educators need autonomy and fluidity within their roles 4-H programming should include certain structures that all agents should utilize within their programming to create consistency of what is being offered to youth who participate in programming.

This research studied agents' perception of 4-H programming, agents explained how diversity and inclusion efforts should occur at all levels of 4-H. Diverse representation within the people who serve as 4-H employees at county and national levels were discussed in agent

responses. Agents discussed how African American youth should see agents and specialist who look like them serving 4-H programs. Participants in the study displayed critical consciousness of changes needed within the 4-H organization to increase and satisfy efforts of diversity, equity, and inclusion for successful programming for urban youth.

This study was guided by Gloria Ladson-Billings (1995) culturally relevant pedagogy framework to explore development of CRP facets within 4-H programs. This study indicates that 4-H agents have been successful in developing strategies to educate and include minority groups into 4-H programs; but the 4-H organization as an institution should be redesigned in way that is reflective of equity, inclusion, and diversity. Culturally relevant pedagogy can be utilized with 4-H programs to equip urban students academically, socially, and critically. Creating culturally relevant spaces in 4-H programming for urban African American youth is important since African American youth were not initially a target audience for participation within these programs. Participants presented their experiences to engage urban youth by modifying 4-H curriculum and programming while also developing approaches to better connect to urban youth. Participants in the study serve differing counties and varying states but they all expressed the need for 4-H programming to be designed with diversity, equity, and inclusion as a lens for creating systematic change within 4-H programming. 4-H agents have autonomy within their positions and their priorities may shift depending on their specific locality which can affect the consistency of what youth gain from participation in 4-H programming. 4-H agents' utilization of the culturally relevant pedagogy framework can provide urban African American youth with an experience that can expose them to agriculture while also helping the youth connect to agriculture by incorporating elements of their cultural experiences and teaching students to think critically about how the information, they learn can be utilized to solve real world problems.

Engaging urban African American youth into agriculture and 4-H can be a benefit for filling career positions within agriculture and ensuring that there is a new group of leaders who will positively influence the agricultural system.

References

- 4-H history in brief*. 4H History Preservation News. (n.d.). Retrieved December 2, 2021, from https://4-hhistorypreservation.com/History/Hist_Nat/.
- Alabama A&M University*. Alabama A&M University. (n.d.). Retrieved December 2, 2021, from <https://www.aamu.edu/about/our-history/morril-act-1890.html>.
- Alim, H. S., & Paris, D. (2017). What is Culturally Sustaining Pedagogy and Why Does it Matter? In D. Paris & H. S. Alim (Eds.), *Culturally Sustaining Pedagogies: Teaching and Learning for Justice in a Changing World* (pp. 1-21). Teachers College Press.
- Akker, J. J. H. van den, & Interuniversitair Centrum voor Onderwijskundig Onderzoek. (1999). *Design approaches and tools in education and training*. Kluwer Academic.
- Banks, V. J. (1986). Black farmers and their farms. *United States Department of Rural, Agriculture and Agriculture Economic Research Service Rural Development Research Report Number 59*. Washington D.C.: United States Department of Agriculture.
- Bell, A.P., Powers, L.D., & Rogers, I.C. (1987). Commitment of 1890 land grant institutions to teacher education in agriculture. *The Agricultural Education Magazine* 60 (6), 13-14.
- Benson, P. L., Scales, P. C., and Syvertsen, A. K. (2011). The contribution of the developmental assets' framework to positive youth development theory and practice. *Adv. Child. Dev. Behav.* 41, 197–230. doi: 10.1016/B978-0-12-386492-5.00008-7
- Borck, Heather Ann, "Nebraska Urban Environmental and Agricultural Systems Education Program: An Evaluation for Development" (2010). Theses, Dissertations, & Student Scholarship: Agricultural Leadership, Education & Communication Department. 6.
- Bowen, B. (1994). Reflections on the need for diversity: Desegregation vs. integration. *The Agricultural Education Magazine*, 60 (6), p. 6-8.
- Bowens, N. (2015). *The Color of Food: Stories of Race, Resilience and Farming*. New York, New York: New Society.
- Brown, A. R. D. (2018, August 3). *Reframing Agricultural Experiences, narratives, and careers for African American Youth: A study of community-based programs leaders' motivations and educational space*. VTechWorks Home. Retrieved February 4, 2022, from <https://vtechworks.lib.vt.edu/handle/10919/84495>
- Campbell, T., Comer, M. M., Edwards, K., & Hillison, J. (2006, June). *Cooperative extension and the 1890 land-grant institution: The real story*. *The Journal of Extension*. Retrieved February 2, 2022, from <https://archives.joe.org/joe/2006june/a4.php>

- Chawla, L. (2001). Putting young old ideas into action: the relevance of growing up in cities to local agenda 21. *Local Environ.* 6, 13–25. doi: 10.1080/13549830120024224
- Chawla, L. (2006). Learning to love the natural world enough to protect it. *Barn* 2, 57–78.
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Thousand Oaks, CA: Sage.
- Christian, C. S., Fraser, R., & Diop, A. (2013). African-American land loss and sustainable forestry in the Southeast: An analysis of the issues, opportunities, and gaps. *Journal of Extension*, 51(6). Retrieved from <http://www.joe.org/joe/2013december/a2.php>
- Consortium to Lower obesity in Chicago Children. Prevalence of Childhood Overweight and Obesity. Retrieved from <http://www.clocc.net/about-childhood-obesity/prevalence/>
- Communications, I. F. A. S. (n.d.). *HISTORY OF 4H*. UF/IFAS extension. Retrieved December 2, 2021, from <https://sfyl.ifas.ufl.edu/pasco/our-program-areas/4h-and-youth-development/history-of-4h/>.
- Cowan, T., & Feder, J. (2009). The Pigford case: USDA settlement of a discrimination suit by African American farmers. CRS Report RS 20430. Congressional Research Service, Washington DC. Retrieved from: <http://wikileaks.org/wiki/CRS-RS20430>
- Creswell JW, Plano Clark VL. Designing and conducting mixed method research. 2nd Sage; Thousand Oaks, CA: 2011. [Google Scholar]
- Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods approach. Sage publications.
- Cummins, M. M., & Nash, S. (2014, October). Urban Youth Develop Life Skills Raising Livestock. Retrieved January 16, 2021, from <https://www.joe.org/joe/2014october/iw7.php>
- Definition of a Food Desert. Retrieved from https://www.ers.usda.gov/webdocs/DataFiles/80591/archived_documentation.pdf?v=0
- Delia J and Krasny ME (2018) Cultivating Positive Youth Development, Critical Consciousness, and Authentic Care in Urban Environmental Education. *Front. Psychol.* 8:2340. doi: 10.3389/fpsyg.2017.02340
- Department of Health Virginia. (2012). Virginia Health Equity Report. <https://www.vdh.virginia.gov/content/uploads/sites/76/2016/06/Health-Equity-Report-2012.pdf>
- Dewey, J. (1938). *Experience and education*. New York: Collier Books.

Appendix E: Individual Interview Script

Introduction to Study

Thank you for participation in this research study. The goal of this interview is to understand 4-H agents' perspectives and opinions about existing 4-H programming in terms of supporting urban African American youth's academic success, developing cultural competence within African American youth, and developing critical consciousness within African- American youths? Additionally, I am interested in what you have done in your role to connect African American youth with 4-H and your thoughts on the use of agriculture with these groups. There are no wrong answers, feel free to answer the questions based on your experiences and opinions.

On the consent survey, you provided permission for me to record this conversation. Are you still comfortable with this?

Ok, I am going to start recording now.

Program Questions

The first set of questions will ask about how general 4-H programming provides positive youth development and academic support to African American youth

1. Do you think it's important for African American youth in urban areas to participate in programs such as 4-H? Why or why not?
2. Drawing from your experience, what does 4-H do well to meet the needs of urban African American youth in 4-H programming?
3. In your opinion, how does 4-H provide leadership skills to African American youth in urban areas?
4. In what ways does 4-H provide African American youth with experiences that develop confidence and character?
5. In your opinion how does 4-H serve African American youth academically?
 - a. How does 4-H develop student's ability to critically analyze situations?
 - b. How does 4-H programming support learning in STEM subjects?
6. In what ways do you feel that 4-H programming could better account for the needs of urban African American youth?

Now I want to specifically ask about what you do as a 4-H agent to connect African American youth in urban areas with 4-H experience.

7. In your own work as a 4-H agent, how have you attended to the needs of the African-American youth that you have worked with in urban programming?
8. In what ways do you feel you could better account for the needs of urban African American youth within your 4-H programming?

The last group of questions will ask about your opinion of incorporation of agricultural education for urban African American youth.

As defined by the National Research Council, an agriculturally literate person is “A person who understands and can communicate the source and value of agriculture as it affects our quality of life” (National Agriculture in the Classroom, 2014).

The National Agriculture Literacy Outcomes are organized under 5 themes. For this study we will focus on learning outcomes from 2 themes

- *Agriculture and the Environment*
- *Plants and Animals for Food, Fiber & Energy*

In the next set of questions when asking about agricultural education I am referring to education that supports agricultural literacy in the two themes above.

9. As a 4-H agent, have you tried to incorporate agriculture education into 4-H programs for African American youth in urban areas? If so, how? If not, why not?

10. In your opinion, is agriculture education essential for African- American youth in urban areas? Why or why not?

11. In your opinion, is it important that agricultural education that African American youth receive through 4-H is also relatable to the education they are receiving in school? Why or why not?

12. In your opinion does agriculture education incorporate concepts that African American youth in urban areas can utilize to enhance their communities? If so, how?

13. In what ways do you think agriculture education can be utilized to provide youth in urban areas with opportunities to experience their environment in new ways, such as gardening, or animal production?

14. That was the last of my prepared questions. Is there anything that you would like to share or add to your responses that wasn't asked in the interview questions.

Thank you so much for your time today. Our next step will be to hold a focus group on Zoom with other 4-H professionals in the next few weeks. Would you like to discuss your availability now, or would you prefer a scheduling poll via email?

I am still looking for other 4-H agents that might be interested in participating in this study. Do you have any colleagues that you would recommend that I reach out to?

Appendix F: Focus Group Interview Script

Introduction to Study

Thank you for participation in this research study. The goal of this focus group interview is to understand 4-H agents' perspectives and opinions about design principles for 4-H agricultural programming in terms of supporting urban African American youth's academic success, developing cultural competence within African American youth, and developing critical consciousness within African- American youths. There are no wrong answers, feel free to answer the questions based on your experiences and opinions.

On the consent survey, you provided permission for me to record this conversation. Are you still comfortable with this?

Ok, I am going to start recording now.

Program Questions

To begin the focus group interview, we are going to start off with a scenario.

Imagine that you are invited to National 4-H to discuss development of 4-H program that address inclusion and diversity efforts in urban areas while also utilizing agriculture education to support urban African American youth.

Design principles can be defined as the frameworks, paradigms, and guidelines that are utilized to create educational curricula or programming. The outcomes of the educational interventions are also dependent upon the design principles that are outlined.

For example, the Targeting Life Skills model is a very common design principle in 4-H and program outcomes align with the Targeting Life Skills Framework.

Let's discuss some approaches and design principles that would be important to consider when developing this programming.

1. For this exercise I want you all to take a minute and write out your ideas on the Jamboard. The link is below.
2. Prompt: Brainstorm design principles that utilizes agricultural education and 4-H programming to support urban African American youth.
3. Why did you choose your specific design principles? How are those design principles helpful in your own work as a 4-H agent?

4. An important part of this study is addressing the need to utilize agricultural education to support student academic success, developing cultural competency within youth, and developing critical consciousness within youth.

1. Let's discuss which design principles that you have identified that will be helpful to support urban African American youth's academic success
2. Let's discuss which design principles that you have identified that will be helpful to develop cultural competence within African American youth
3. Let's discuss which design principles that you have identified that will be helpful to develop critical consciousness within African American youth?

5. Why should agricultural education be considered as a tool for developing well rounded African American students?

Themes	Category	Subcategory	Codes	Quotes
<p><i>Theme 4: Utilizing CRP facets</i></p>	<p><i>How to Engage African American Youth</i></p>	<p>Ensuring representation of African American youth in 4-H</p> <p>Ensuring resources for African American youth in 4-H</p> <p>Intentional engagement with African American youth for 4-H programs</p>	<p>Utilizing STEM programming to connect urban youth; Diverse representations amongst 4H faculty; HBCU mission to connect socially disadvantaged youth; Connecting 4H experience to life experiences; Prioritizing 4H program access for African American youth; Funding to support youth participation; Focus in on kids of color; Bringing 4H programs directly to kids; Marketing 4H programs; Accessible 4H programming; Developing intentional programming; Agent connects to urban population; Modify 4H curriculum to support audience</p>	<p>"But recruiting individuals who reach communities that I can't get to. I think that's going to be the key because 4H is for everyone, even that we do is going to benefit a who walks through our door. By getting them in the door that may take a little bit more time a little more brand leaders. And so, I think it was more intentional and reach and creating a volunteer leader structure that had more diversity which I do have diverse team of volunteers, but really arming them being good representatives of the brand. In places where I can't get to think that would be a very positive increase in reaching the needs of African American youth"</p>
	<p><i>Relationships</i></p>	<p>Youth relationships</p> <p>Community Relationships</p> <p>Relationships with other youth organizations</p>	<p>Partnering with youth organizations; 4H agents developing community relationships; Agent teacher collaboration; Developing positive relationship between agent and youth; Be present, be a resource of information;</p>	<p>"But one of the biggest things that models is a positive youth and relationships. And that's one of the main ways that I can provide effective programming and get to know about this generation of children by doing programming with them also allotting time within programs that I conduct and facilitate, to go to them, get to know them, so that I can keep me in the loop about what's going on. And so that, I can just get more of an idea of what their mission is towards, towards youth development, programming to support their school experience, and just change our mentality and our thinking towards adults as well. So, I hope that at the question, I'm a very, I try to get to know them and meet them where they're at. Yes?"</p>