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CROSS-CULTURAL COMPARISON OF PERCEPTIONS ABOUT SCHOOL FEEDING PROGRAMS FROM GHANAIAN AND U.S. ADULTS

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CROSS-CULTURAL COMPARISON OF PERCEPTIONS ABOUT SCHOOL FEEDING PROGRAMS
FROM GHANAIAAN AND U.S. ADULTS

THESIS

A thesis submitted in partial fulfillment of the
requirement for the degree of Master of Science in the
College of Agriculture
at the University of Kentucky

By

Yolanda Letrice Jackson

Lexington, Kentucky

Director: Dr. Janet Mullins, Professor of Dietetics & Human Nutrition

Lexington, Kentucky

2012

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ABSTRACT OF THESIS

CROSS-CULTURAL COMPARISON OF PERCEPTIONS ABOUT SCHOOL FEEDING PROGRAMS FROM GHANAIAAN AND U.S. ADULTS

Because of an increase in food insecurity over the past decade, the U.S. and many developing countries are focusing efforts on issues relating to child hunger. School feeding programs have been in existence for roughly 220 years but modifications have been made over the years to improve the quality of food they serve. Little research has been conducted about adult perceptions of school feeding programs and the impact it has on the community in the U.S. as well as developing countries such as Ghana, West Africa. Because of the gap in literature on school feeding programs and adult perceptions about school feeding programs, the purpose of this study was to examine adult perspectives on school feeding programs in the U.S. and Ghana rural, mountainous communities. Semi-structured interviews were conducted in two communities with similar community characteristics. Semi-structured interviews examined adult perceptions regarding school feeding impact on kindergarten student attendance, learning, behavior and community impact. The sample size for this study was N=41. Grounded theory provided the framework for data analysis from which a paradigm model was developed. This paradigm model provides a visual representation of the relationships among causal conditions, phenomenon, context, intervening conditions, action/interaction strategies and consequences.

Keywords: Ghana, Kentucky, school feeding, qualitative research, Cross-cultural.

Yolanda Jackson

November 20, 2012

CROSS-CULTURAL COMPARISON OF PERCEPTIONS ABOUT SCHOOL FEEDING PROGRAMS
FROM GHANAIAN AND U.S. ADULTS

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Chapter One: Introduction

World hunger is a growing problem and finding solutions to alleviate hunger is imperative for young children. Studies have shown consistently the physical effects of hunger. In small children, hunger stunts growth, affects brain development and function, as well as causing numerous nutritional deficiencies (Kristjansson B, 2009). It is evident why nutrition interventions should be a priority in efforts to alleviate hunger. Good nutrition has a major impact on all children and is one of the most cost-effective strategies available, along with the opportunity for education. Food insecurity does not only affect developing countries such as Ghana, food insecurity can also be found in the United States. Children who suffer from food insecurity will suffer similar fates, no matter where they live.

Food issues are currently high profile because the public has an increased interest in improving food related issues as it relates to hunger, childhood obesity and school feeding programs. Because of its significance, the U.S. and many developing countries are focusing efforts on food issues related to children. School feeding programs have been in place for many years, but modifications have been made to improve the quality of food served and to better serve the target audience. Various studies have been published about the effects school feeding programs have on children and how this may impact their lives years later (Jomaa, McDonnell, & Probart, 2011). But little research has been conducted about how community members perceive the school feeding programs in the U.S. or developing countries. Although developing countries are gaining increased access to food and calories through limited government assistance and private donors, many U.S. school feeding programs are facing challenges to source affordable foods that meet recommendations set by the USDA for school feeding programs. Because of the gap in literature regarding adult perceptions of school feeding programs, this study examines Ghanaian and Kentuckian adult perceptions about school feeding programs in rural, mountainous communities.

Chapter Two: Literature Review

School Feeding Programs

School feeding programs have been implemented around the world for varying reasons, most importantly to alleviate short term hunger in children. Studies have shown that poor health and nutrition inhibits learning for all school aged children (Florencio, 2001). Children who are malnourished show signs of stunting, wasting and anemia (Florencio, 2001). It is well known that early interventions result in better outcomes. School feeding programs have been around for nearly 160 years in developed countries such as the United States and were initially implemented as a means to make use of surplus food commodities (Florencio, 2001; Gunderson, 2012). School feeding programs are now being implemented around the world to improve educational outcomes by reducing short-term hunger during the school day. Children who are well-nourished will exhibit better classroom behavior, specifically better concentration and participation in classroom activities, which will in turn result in better learning outcomes. If children in the community are able to learn more, they can improve the literacy level of the community and reduce the cycle of poverty (Greenhalgh, Kristjansson, & Robinson, 2007). This will uplift the community, thus making it a better place to live.

Not only do school feeding programs improve hunger, they are used to “teach children about food, nutrition, and health for the purpose of promoting good practices and desirable habits” (Florencio, 2001). In order for future generations to succeed and become responsible citizens, they must be taught the skills necessary to carry on traditions and customs when they are young. When implementing a school feeding program it is important to consider cultural practices, palatability, food allergies and intolerances (Greenhalgh, et al., 2007). In order to improve health outcomes and overall well-being, children must consume the needed calories, vitamins and minerals being served to them. If foods being served to children are not desirable they will not eat them. School feeding program Interventions among low and middle income countries resulted in higher attendance rates (Greenhalgh, et al., 2007). In order for student

attendance to increase in low income areas, hunger must be present and foods served must be desirable to the children.

Ghanaian School Feeding Programs

School feeding programs around the world vary to meet the needs of the children. The Ghana Home Grown School Feeding Programme was introduced in September 2005 “to provide children in public primary schools and kindergartens in the poorest areas of the country with one hot, nutritious meal per day, using locally-grown foodstuffs” (Afoakwa, 2010). Providing children one hot meal per day will temporarily decrease hunger and enable children to perform better in the classroom. More regular attendance is expected due to the free meal being an incentive for parents to send their children to school. According to Florencio (2001), the school feeding program in Ghana was “designed to favor school enrollment of girls by providing them with a take-home snack in addition to meal at school.” This design was developed in an attempt to meet the Millennium Development Goals, specifically the goal to *promote gender equality and empower women* (Afoakwa, 2007). It is well known that girls in developing countries are less likely to attend school as compared to boys. According to UNESCO Monitoring Report 2006, as many as 57% of girls around the world were not enrolled in school (Afoakwa, 2007). The Ghanaian School Feeding Program was implemented as a way to meet Millennium Development Goals and improve the quality of life residents.

The school feeding program is in place for Ghanaian primary schools, but had not included kindergarten and middle school or junior high school students. These students must either bring their own food or go home for a meal during break time. Because many of the primary children have siblings in kindergarten and middle or junior high school, various organizations have funded meals for those schools not receiving aid from the Ghanaian government. But in doing so, there is concern about sustainability and food sovereignty once these organizations are no longer funding school feeding programs.

United States School Feeding Program

School feeding programs in the United States have been in existence since the early 1800s. School meals were supplied by private societies and organizations (Gunderson, 2012). Government programs began in 1935 under the Agricultural Adjustment Act. This act was intended to supply needy families and schools with surplus meat, dairy products and wheat (Pikkutt et al., 1978). Early school lunch programs were established to help those families and schools in need but also as a measure to disburse surplus food so that food was not wasted. Particularly during the Great Depression, more families needed assistance prompting the government to consider school lunch programs. Because of widespread need, private societies and organizations were no longer able to provide solely for the needs of the schools and families. The United States Department of Agriculture (USDA) School Lunch Program was established in 1946 and institutionalized school feeding for all schools in the United States (Pollitt, Gersovitz, & Gargiulo, 1978). The Child Nutrition Act of 1966 was passed in order to allow government control over school meal programs.

“Congress stated, In recognition of the demonstrated relationship between food and good nutrition and the capacity of children to develop and learn, based on the years of cumulative successful experience under the National School Lunch Program with its significant contributions in the field of applied nutrition research, it is hereby declared to be the policy of Congress that these efforts shall be extended, expanded, and strengthened under the authority of the Secretary of Agriculture as a measure to safeguard the health and wellbeing of the Nation's children, and to encourage the domestic consumption of agricultural and other foods, by assisting States, through grants-in-aid and other means, to meet more effectively the nutritional needs of our children” (Pollitt, et al., 1978).

This Act was passed in order to provide children with meals at school to enhance learning and to provide schools with government assistance to ensure that each school was able to provide meals at school for all children.

Currently the National School Lunch Program (NSLP) is federally assisted and provides meals to over 100,000 schools per year including public, private and residential child care institutions ("Federal Child Nutrition Programs," 2010). Those schools participating in the NSLP must follow the recommendations of the Dietary Guidelines for

Americans ("Federal Child Nutrition Programs," 2010). These guidelines pertain to how much fat, protein, vitamin A, vitamin C, iron, calcium and calories can be in school meals. In order to receive free or reduce meal prices, each student must qualify by meeting household income guidelines.

The Healthy Hunger Free Kids Act of 2010 was designed to improve child nutrition. This act includes Community Eligibility Option also known as the Universal Feeding Program, which allows schools in high poverty areas to provide all students free breakfast and lunch using a simplified administrative procedure ("USDA Announces Universal Meal Service Option to Boost School Meal Participation in High-Poverty Areas," 2011). Most children living in high poverty areas qualify for free or reduced price meals at school. In an attempt to alleviate hunger and reduce household financial burdens, children in these areas will receive at least two meals a day.

Food Sovereignty Concept

When developing a school feeding program, it is important to think about the cultural beliefs that the people in the community may have and how this will affect the school feeding program. "Culture is a multilayered system of meanings and other man-made structures that influence an individual's activities and development" (Vedder, Kouwenhoven, & Burk, 2009). The foods the children will eat need to be culturally acceptable. Planning a well-balanced meal is important, but one must also think about the resources available to those living in the village. Foods need to be readily accessible and affordable. Food sovereignty, "empowers local communities to have control over their productive resources, use ecologically friendly means of production, and access local markets as well as nutritious and culturally accepted food" (Quaye, Essegbey, Frempong, & Ruivenkamp, 2010). A well-designed school feeding program will allow students to be happier and more satisfied with the foods they are receiving because they will be locally procured and culturally acceptable. It can also foster community economic development by supporting local farmers and producers.

School Feeding and Learning Outcomes

Studies have documented a link between school feeding programs and improved educational outcomes. School feeding programs were designed to reduce short-term hunger in children to increase learning capacity (Jomaa, et al., 2011). Studies have demonstrated that better nutrition is associated with an increased learning capacity (Omwami, Neumann, & Bwibo, 2011). Although nutrition plays a role in improving learning outcomes, other factors influence a student's ability to learn. Studies in developing countries have shown variables such as staff background, staff knowledge or skill level, and cultural beliefs as barriers to learning outcomes for school children. School feeding programs are more critical to those in developing countries because the basic needs of the population have not been met.

It is evident that hunger promotes undesirable classroom behaviors such as poor concentration which can lead to poor academic performance (Kristjansson B, 2009). But, further research is necessary to understand how nutrition interventions play a role in alleviating undesirable behavior and increase learning outcomes. Some developing countries do not have government support and must rely on outside organizations to fund school meal programs. "The WFP [World Food Program] and its development partners have been promoting school feeding in its different modalities for years as effective interventions that help alleviate hunger and improve the cognitive and educational abilities of children." Feeding hungry children allows them to better concentrate which will improve learning outcomes. A study conducted by the International Food Policy Research Institute conducted a study that showed a significant impact of school feeding programs and increased educational outcomes on school children in Bangladesh (Jomaa, et al., 2011). Literature shows consistently a positive correlation between school feeding, school enrollment and attendance (Jomaa, et al., 2011). Evidence shows school-aged children's academic achievement is consistently positive for arithmetic tests, but inconclusive for reading, writing, and spelling tests (Jomaa, et al., 2011). Thus, proving that even temporary relief of hunger provided by school feeding programs improves educational outcomes

Feeding programs have been shown to improve overall health and well-being for students. Certain vitamins and minerals are necessary for brain development and function. A study conducted by the Nutrition Collaborative Research Support Program (NCRSP) in Egypt, Kenya, and Mexico (Neumann, et al., 2007) assessed the associations between meat intake and physical growth, cognitive function, school performance, physical activity, and social behaviors. The intervention provided the children with a midmorning snack which consisted of githeri, “a local dish composed of maize, bean and greens.” Those in the meat group intervention received githeri with finely ground beef with 10-12% fat added. The study found positive relationships between meat and milk intake and improved cognitive performance. This study reported improved cognitive performance attributable to greater intake of vitamin B-12 and more availability of iron and zinc present in the meat. The NCRSP study gives insight as to what kind of food interventions may be best for enhanced brain growth and development, which in turn can lead to improved cognitive performance and better learning outcomes in school children.

School Feeding and Classroom Behavior

Studies have consistently demonstrated that hungry children do not behave well in the classroom (Kristjansson B, 2009). According to Rebecca Ramsey, “children are two and half times more like to display (behavioral problems) if they live in a food insecure household” (“Poor Diet Affects Kids Behavior: Study,” 2011). From this statement we can conclude hunger results in unwanted behaviors in the classroom that may prohibit students from academic achievements. Students who were less hungry were less likely to be off task, less likely to get up out of their seats. They exhibited increased class participation and sustained attention (Grantham-McGregor & Olney, 2006).

School Feeding and Attendance

Parents send their children to school to better themselves, to learn so they can grow up to be responsible citizens of the community. In areas of high poverty, often times meals are provided for little or no cost to students. Therefore, parents send their children to school in order for them to receive a meal. A Cochrane review of literature of school feeding programmes found that “those in low and middle income countries showed significantly higher attendance levels in supplemented groups, whereas studies in high income countries had non-significant effects on attendance” (Greenhalgh, et al., 2007). Thus, in order for a school feeding program to improve attendance, there has to be a need for the feeding program, hunger must be present.

Chapter Three: Research Purpose

The purpose of this study is to compare adult perceptions about school feeding programs in two low income rural communities. Two cultures with similar characteristics were selected for analysis of adult perceptions regarding school feeding programs for kindergarten children in Adjeikrom, Ghana and Campton, Kentucky. This study will examine adult perceptions of how school feeding programs affect kindergarten student attendance, behavior and learning.

Objectives

- To compare Ghanaian and Kentucky adult perceptions about how kindergarten lunch programs influence student attendance.
- To compare Ghanaian and Kentucky adult perceptions about how kindergarten lunch programs influence student learning.
- To compare Ghanaian and Kentucky adult perceptions about how kindergarten lunch programs influence student behavior.
- To compare Ghanaian and Kentucky adult feelings about the school lunch program.
- To compare Ghanaian and Kentucky adult perceptions about the influence the school lunch program has on the community.

Research Questions

1. Are Adjeikrom, Ghana adult perceptions about school feedings impact on the community different from Campton, Kentucky adult perceptions?
2. What perceptions do adults from Adjeikrom, Ghana have about school feeding's effect on attendance, behavior, and learning and how do their perceptions differ from adults from Campton, Kentucky?

Campton Kentucky-Adjeikrom, Ghana Cross Cultural Comparison

Campton, Kentucky is a small city in Wolfe County in eastern Kentucky in the United States. According to the 2000 U.S. Census, its population included 424 residents, mostly Caucasian with less than one percent of the residents being of “other” race. The city is 1.1 square miles (2.9 km²), rural and mountainous. Children in Campton, KY attend schools in the Wolfe County School District. There are three elementary schools in Wolfe County School District, Campton Elementary which is the newest school in Campton, Red River Valley Elementary, and Rogers Elementary.

School feeding programs have been established in U.S. schools as early as 1853. All schools in the Wolfe County School District provide *free* breakfast and lunch to students because of the *Universal School Feeding Program*. The Universal School Feeding program was implemented in Wolfe County during the 2010-2011 school year because a high percentage of its students qualified for free or reduced lunch ("USDA Announces Universal Meal Service Option to Boost School Meal Participation in High-Poverty Areas," 2011). Although the Universal School Feeding Program allows students to enjoy breakfast and lunch at no cost to the student, students must pay for extra portions or additional servings beyond what is considered the standard meal servings.



School meals in the U.S. are governed by the United States Department of Agriculture (USDA). School Food Service Managers are responsible for following guidelines set forth by the USDA when planning and preparing school meals.

Adjeikrom, Ghana is a small village located in South Eastern Ghana in West Africa. According to the census collected by a member of the Peace Corps, the village of Adjeikrom has a population of about 1,800 persons, all of African descent. Adjeikrom is rural and mountainous. The children in Adjeikrom attend The Kentucky Academy, which is the only kindergarten school in the village. The Kentucky Academy is a public school that was rebuilt and renamed in 2000.

The Ghana School Feeding Programme was initiated in September 2005 to provide public kindergarten and primary schools with locally grown foods for children in

the poorest areas with one hot nutritious meal per day (Afoakwa, 2010). The Ghanaian government has not been able to provide assistance to all public schools in Ghana. The Kentucky Academy initiated a school feeding program in January 2011 with financial assistance provided by private donors. Meals provided to the children at the Kentucky Academy are not regulated or sanctioned by the government because the school feeding program is supported by private donors including some of the village people. Children attending The Kentucky Academy are able to eat at no charge to them or their parents. The children are served an age appropriate portioned meal, extra portions or servings are not offered to the children.

Table 3.1. Campton Kentucky-Adjeikrom, Ghana Cross-Cultural Comparison.

Characteristic	Campton, Kentucky	Adjeikrom, Ghana
Population (Village/town)	424 (2000 census)	Approximately 1,800 (2010 census)
Area of County	1.1 square miles	-----
Location of County		
Major Cities and Towns	Wolfe: Population 7,065 Area 32 square miles	Tafo: Population Area Koforidua: Population 87,315 Area
School Districts	Wolfe County Public Schools	Fanteakwa district
Number of Elementary Schools	3	1
School Feeding Establishment	As early as 1853 in the U.S.	January 2011
Typical School Feeding Cuisine	A variety of fresh fruits, vegetables, starches such as potatoes, a variety of proteins such as chicken, fish, beef, and milk or juice to drink.	Rice, chicken, fish, eggs, starches (plantains, yams), fresh fruit when available.
Government Assistance	Yes, Universal Feeding program initiated 2010-2011 school year.	Government assistance available in this country but the government has not reached the kindergarten school in this district to date.
Student fee for lunch?	No, all children eat free in this school district due to poverty level.	No

Chapter Four: Methods

The University of Kentucky Institutional Review Board approved this research study and informed consent was obtained from all interviewees prior to participating in the study. Careful examination of the World Food Program report and the United States Department of Agriculture (USDA) guidelines guided the development of the semi-structured interview questions. The questions were carefully examined by the principal investigator and student researcher prior to initial implementation and revisions were made accordingly. The questions were designed to be open and non-leading in nature. The aim was to investigate adult perceptions about school feeding program effect on the community, student attendance, student learning, and student behavior.

Purposive sampling was used to invite key personnel in each community to participate in the study. *Community Liaisons* were identified in each community and assisted in recruiting local participants (James, Pobee, Oxidine, Brown, & Joshi, 2012). Recruitment was done on site by inviting villagers or community members to participate in a school feeding interview. Once informed consent was obtained from the participants, interview sessions were recorded using a digital camera. Participants were encouraged to speak freely without reservations. The student researcher conducted the interviews and the Principal Investigator assisted with field notes. Interviews in Campton, Kentucky were conducted during a “Back to School” festival in August 2011 and during the first half of the 2011 school year. Interviews in Adjeikrom, Ghana were conducted in June 2012.

Study Participants

Participants were adults residing in the village of Adjeikrom, Ghana and nearby villages in Ghana, West Africa or residents of Campton, Kentucky, United States. Twenty-two interviews were conducted in the village of Adjeikrom, Ghana. Twenty interviews were conducted in Campton, KY. One interview was excluded because the interviewee was a minor. Total sample size was N=41 interviews.

Data Collection

Interviews were conducted by two graduate student researchers and one faculty member. Interviews took place in the dining hall of the Kentucky Academy in Adjeikrom, Ghana and at three public elementary schools or at a picnic table at the City Park in Campton, Kentucky. Interviews lasted between five to ten minutes and consisted of semi-structured interview questions regarding perceptions about how the school feeding program impacts the village or community, attendance, learning outcomes, and classroom behavior. The interview also included questions concerning hunger for the residents of Campton, Kentucky and questions concerning household meals and behaviors for the residents of Adjeikrom, Ghana.

Data Analysis

Upon completion of data collection, the interviews on the digital camera were downloaded to the computer and were transcribed into a Word document by the student researcher. Transcripts were cross checked against the digital media and field notes and were reviewed by study personnel for accuracy. The principles of Grounded Theory framed the content analysis of the data. The transcripts were *open coded* independently sentence by sentence by the Principal Investigator to break the data down into concepts. Strauss and Corbin define concepts as “*conceptual labels placed on discrete happenings, events, and other instances of phenomena* (Corbin, 1990). A code book was developed and utilized while coding the transcripts to give the graduate researcher more flexibility in coding. This also allowed the graduate researcher to develop more themes once they were discovered during the coding process. Three people were involved in the coding process, the Principal Investigator, one graduate researchers and one faculty member. The Principal Investigator coded all transcripts independently first, while developing a code book. The graduate researcher and faculty member coded all transcripts independently following the Principal Investigator using the code book developed by the Principal Investigator. Once all transcripts had been coded by the Principal Investigator and graduate student researcher, a meeting was

conducted to discuss the similarities and differences of opening coding the transcripts. As expected, there were some differences in coding. For those codes, the Principal Investigator and graduate student researcher discussed and came to a mutual agreement on the codes in question. In order to proceed with axial coding, the Principal Investigator and graduate student researcher developed a new codebook based on the open coding concepts. The concepts were explored and similar concepts were grouped into a categories based on relationships. Strauss and Corbin define a category as “*A classification of concepts. This classification is discovered when concepts are compared one against another and appear to pertain to a similar phenomenon. Thus the concepts are grouped together under a higher order, more abstract concept called a category*” (Corbin, 1990). Each category was examined for properties describing the category as well as the dimensional range for each property. Once the new codebook was developed, the Principle Investigator and the graduate student researcher independently coded the data once more using the built up categories.

To examine the connections between the axial coded data, a paradigm model was developed to include causal condition, causal condition properties, phenomenon, context, intervening conditions, actions/interactions and consequences.

Chapter Five: Results

The interviews revealed that hunger in a developing country is just as prominent in a developed country given certain community characteristics such as rural, low income, and lack of resources or resources that are not easily accessible. Although government assistance may be provided in developed countries such as the U.S., the use and or misuse or mismanagement of government assistance and lack of resources also play a significant role in childhood hunger for kindergarten students in the U.S. Kindergarten students in Adjeikrom, Ghana however are more likely to experience hunger due to the time it takes their parents to prepare food. It is common for parents to leave early for work before children prepare for school, so parents are not able to prepare a meal before the children leave the home. Also, some children travel miles to attend the kindergarten school in Adjeikrom, so they leave the home early before their parents have time to prepare a meal.

Adult Attitudes about the School Lunch Program

Anytime assistance is provided to a low income community, one can expect community members to be happy and positive about the assistance provided. Adults in Adjeikrom, Ghana and Campton, KY were asked how they felt about the newly implemented school feeding program or the newly implemented Universal school feeding program. The data analysis revealed that most adults perceived the school feeding programs as the best they could do for the children in the community. It was also found that adults in Adjeikrom, Ghana expressed more gratitude such as being grateful or thankful for the school feeding program. Adults in Ghana also spoke of the impact the school feeding program had on the kindergarten students.

“Because they are happy they are always eager to attend”

“Very good program for the children”

“Everyone is praising the program, commending what has been done”

“It’s especially nice for the less fortunate”

“Now parents don’t have to worry about the children”

In contrast, data analysis revealed that adults in Campton, KY expected the children to be fed in school, but some also expressed gratitude due to the Universal School Feeding Program now providing free meals to all students in the Wolfe County School District. Some adults from Campton stressed the need for children to receive meals at the end of the month. Meals are needed more at the end of the month due to families running out of food. Low food supply at end of the month can be attributed to parents getting paid only once per month, funds being low on the food stamp card, or mismanagement of resources.

"I'm glad they all get free lunch"

"Meals are a big need here especially at the end of the month"

Adult Attitudes about Attendance

Providing a free meal or meals in low income areas generally yields a higher turnout and in the case of schools, it usually yields higher attendance. Analysis of Adjeikrom, Ghana adult interviews revealed adults expected school attendance to increase post implementation of the newly established school feeding program.

"It has improved, they always come"

"It is helping them to be proactive, more interested in coming to school"

Analysis of Campton, KY adult interviews revealed adults expected attendance to mostly remain consistent. However, a few adults expected attendance to increase at the end of the month due to food stamp monies being low or completely depleted and parents sending children to school to receive meals.

"Hungry kids come to school more"

"I'm sure most of our students come to school for meals"

“Some come just for the meals at the end of the month”

“Hard to measure, but I do notice on Monday’s kids eat like they’re famished, like they didn’t get anything to eat over the weekend”

Adult Attitudes about Student Behavior

Improvements in negative or unwanted classroom behaviors were expected once short-term hunger was alleviated. Analysis of adult interviews from both cultures revealed adults perceived school feeding as the answer to negative classroom behaviors in kindergarten children. Adults from both cultures described negative or unwanted classroom behavior as lack of focus, inability to concentrate, and whining. Adults for Adjeikrom, Ghana had the following to say about student behavior.

“They can focus and concentrate when they’ve eaten”

“When a child is hungry, that is the only thing on their mind”

“A well fed child is well focused”

“It helps them because they don’t have divided attention”

Analysis of adult interviews from Campton, KY revealed that hungry students exhibit traditional behaviors of hunger such as lack of focus, poor concentration, crying, and some degree of anger. But analysis of adult interviews from Campton, KY also revealed some hungry students exhibited additional behaviors such as begging, fighting, stealing, and poor attitude.

“Complaining all the time because they are hungry”

“If they are hungry, they are sleepy and grouchy”

“Hungry children are whiney, crying, ‘wants to eat now’ it affects their total mood”

“When children are hungry, they are not as focused, not as on task”

“Kids that don’t eat have a short attention span, they can’t concentrate, and they don’t care about anything”

“My hungry students are the sleepers, they steal snack money, they bully to get food, and they are the beggars”

“Hungry kids are more frequently in the principal’s office”

Adult Attitudes about Learning

For the purposes of this research study, learning pertained to any statement mentioned by the adult in reference to how they felt school feeding affected student achievement. Adult interviews from both communities revealed that adults perceive school feeding as a way to enhance school learning for students. Many adults believed temporarily relieving hunger would improve student behaviors specifically focus and concentration, thus improving student learning. Ghanaian adults had the following to say about learning.

“Impact on instruction with good meals and they perform better in class”

“A child can’t learn if they are hungry”

“Children are able to learn because they pay attention”

Adults from Campton, KY had the following to say about school feeding and its impact on learning.

“If they’re hungry and ain’t had nothing to eat, they ain’t gonna wanna do their work either”

“It helps them a lot because they can concentrate on learning and not on food and being hungry”

Adult Attitudes for Hunger

To better understand the phenomenon of childhood hunger, further examination of adult interviews was done to identify under what conditions hunger occurred in each community. Interviews of adults from Adjeikrom, Ghana revealed that

conditions for hunger existed when parents leave for work before preparing a meal for their children or if the quantity of food provided is not sufficient to meet the child's needs.

In contrast, interviews of adults from Campton, KY revealed conditions for hunger existed if government assistance was not provided in the form of food stamps, if family members had issues with drugs and or sold food stamps for drug money, and if resources were not properly managed and food ran out before the end of the month.

"Most of the people in Campton receive government aid in order to put food on the table, but they sell their food stamps or spend food money on drugs"

"Parents don't work, they receive foods stamps and a lot of families have issues with drugs"

"Parents in our area sell their food stamp card for fifty cents on the dollar to receive cash for drugs"

"Families get assistance, but they misuse funds for drugs"

Adult Attitudes about Food Environment

In addition to examining adult perceptions about the school feeding program impact on kindergarten students and the community, it was important to also examine the food environment in which the study was conducted. When speaking of food environment, this mostly pertains to the community of Campton, KY because the Ghanaian adults are accustomed to traveling rather far to most major cities to acquire goods. Campton adults were not asked about their food environment, but they provided this additional information in an attempt to explain why they consumed high fat, high sugar, high calorie foods versus more fresh fruits and vegetables. The food environment in rural Campton, KY can be compared to that of an urban food desert. Adult interviews from Campton revealed there was not a grocery store in the county, instead community members must result to high sugar, high fat, high calorie food items from the "Family Dollar," "Dollar General Store," or the gas station. Adult interviews

from Campton, KY also revealed there was a lack of access to fresh produce. The closest grocery store according to adults interviewed is in Powell County, KY, approximately 26 miles from Campton, KY.

“Residents must purchase foods from the “Family Dollar,” “Dollar General Store,” or the gas station and these stores don’t sell fresh fruit or vegetables, you can only get canned. You can purchase bologna and milk”

“Junk is cheap, the more junk and sugar it has in it, the cheaper it is”

“Foods at the “Dollar Store” or “Family Dollar” are the best prices”

“Prices at the gas station are outrageous”

Paradigm Model

Grounded theory provided the framework for linking subcategories into categories to show relationships between *causal conditions, phenomenon, context, intervening conditions, action/interaction strategies and consequences*. See appendix D for the paradigm model. Hunger was found to be the major phenomenon for this study and how adults in each community perceived hunger was interesting. The children in both communities were found to be experiencing hunger at some point in the day; the reason for the child experiencing hunger was different for each community. From these findings, one can conclude that government assistance alone does not alleviate hunger. Often times in developed countries government assistance is provided to those in need if they meet certain financial criteria. Abuse of government assistance such as the Supplemental Nutrition Assistance Program was mentioned often for adult interviewees in Campton, KY.

Causal conditions for hunger from both communities were examined using grounded theory and it was found that poverty, lack of food and or resources, and misuse of resources often caused the phenomenon of childhood hunger. Properties of the causal conditions mentioned are limited resources, low-income, acute/chronic

hunger, and drug use/abuse. Causal conditions lead to a context or conditions under which hunger is present. The following conditions must be present for hunger to exist: rural area: West Africa or Eastern Kentucky, low socioeconomic status, no consequences for misuse/abuse of government issued assistance, government mandated to feed school children but not carried through.

Once the phenomenon, causal conditions, and context under which the phenomenon existed were identified, conditions for interventions had to be identified. The following conditions were identified: Excessive distance needed to travel for food, selling of government issued assistance for money and/or drugs, absence of government assistance.

In order to improve hunger or to temporarily alleviate hunger an intervention or action must take place. For this model it was decided that the Universal School Feeding program would be the intervention for Campton, KY and the newly established school feeding program would be the intervention strategy for kindergarten children in Adjeikrom, Ghana. With any intervention or plan of action there are consequences, some intended and others unintended. Intended consequences included: Childhood hunger temporarily reduced, increased enrollment and attendance among kindergarten students, improved classroom behavior, community acceptance. Unintended consequences of the interaction include: Children receiving 3 meals per day, ease of financial burden associated with sending children to school, so monies can be allotted for other household/family needs, lack of community participation, and teachers paying for extra portions and/or snacks for students.

Chapter Six: Discussion

The purpose of this qualitative cross-cultural study was to explore adult perceptions and attitudes from different cultures regarding school feeding programs impact on two low income rural communities. Adult perceptions about school lunch and its impact on behavior were consistent with previous research. Many adults believed unwanted classroom behaviors were found to be reduced once a hungry child had been fed. Because this study included adult perceptions about learning, it was important to examine how adults perceived how well students learned once hunger had been temporarily alleviated. This was an attempt to examine the importance of feeding during school to alleviate short-term hunger. Adult perceptions about attendance differed for each community. Adults in Adjeikrom, Ghana believed the school lunch program was the reason for the increase in attendance at The Kentucky Academy. Adults in Campton, KY perceived attendance as mostly stable with increases at the end of the month. This increase at the end of the month could be attributed to families being low on resources for food, so they send their children to school to get meals.

The Universal School Feeding program was newly established in Campton, KY, making it a comparable comparison to the newly established school lunch program in Adjeikrom, Ghana. Interviewees from both communities had very positive feelings towards the school feeding program in general. Statements such as “It’s great,” “It’s wonderful,” “I’m glad,” and “It’s a very good program for the children” were mentioned repeatedly in both communities. Although, adults in the Ghanaian community were accepting of the school lunch program, they also wanted more locally grown foods to be purchased and provided to the students at school. More locally grown foods would also have an economic impact for the village as well, thus enhancing the entire community.

Ghanaian adults are faced with childhood hunger issues that differ from those experienced by adults from Campton, KY who rely on government assistance for food. It can be said that Ghanaian adults use critical thinking to produce or manage resources to feed their children, even if it means leaving the house to find work or learning how to

farm in order to grow their own food. Government assistance is not an option for most Ghanaian adults and they know not to rely on this as a means of assistance. Adults from Campton, KY on the other hand repeatedly mentioned they were food secure because they had food stamps, or “my family doesn’t have to worry about going without food, just don’t take my food stamps away.” Adults in the developed country of the U.S. rely heavily on government assistance to feed their children and just to survive.

Data analysis of adult interviews of both communities revealed that teachers play a major role in providing financial assistance to students who cannot afford food. Prior to implementing the school feeding program in Adjeikrom, Ghana, teachers would provide money out of their own pockets to give to disruptive students to go to the store to get a snack to alleviate short-term hunger. In Campton, KY, teachers provide financial assistance for students who want extra portions or students who do not have money for snack time.

Limitations

There were limitations to this study, financial limitations, sample size and most importantly, time limitations. Because of the expense of traveling to Adjeikrom, Ghana from Kentucky, U.S.A., one trip was made by the graduate researcher to collect data for the study. Because the graduate researcher was also a student, the window of opportunity to collect data in Adjeikrom, Ghana was short due to responsibilities at the university and responsibilities as a graduate student. The sample size for this study was N=41, which could be considered rather small given the context of this qualitative cross-cultural study.

Chapter Seven: Conclusion and Recommendations

This study explored adult perceptions regarding school feeding programs, whether newly established or reinvented to meet the communities needs and its impact on the lives of the kindergarten students as well as the community. Its focus was to explore two different communities from different cultures with similar characteristics. Grounded theory was the best fit for data analysis for this study and provided structure to create a paradigm model explaining the phenomenon of childhood hunger as it pertains to this study. Future studies may benefit from using a larger sample size and spending more time in the communities under observation. Examination of the hypothesis of student attendance increasing at the end of the month due to depletion of resources should also be explored in future research.

Appendix A: IRB Approval Document



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Add Off-Sites, Consent

Modification Review

Approval Ends
December 2, 2011

IRB Number
10-0859-F4S

www.research.uky.edu/ori/

TO: Janet Mullins
Nutritional Sciences
206J Funkhouser Bldg.
0054

PI phone #: (859)421-5029

FROM: Chairperson/Vice Chairperson
Institutional Review Board (IRB)

SUBJECT: Approval of Modification Request for Protocol 10-0859-F4S

DATE: June 6, 2011

On June 3, 2011, the Institutional Review Board approved your request for modifications in your protocol entitled:

Impact of a Newly Established Kindergarten Lunch Program on Student Attendance, Learning, and Behavior in Adjeikrom, Ghana

If your modification request necessitated a change in your approved informed consent/assent form(s), attached is the new IRB approved consent/assent form(s) to be used when enrolling subjects. [Note, subjects can only be enrolled using informed consent/assent forms which have a valid "IRB Approval" stamp, unless waiver from this requirement was granted by the IRB.

For information describing investigator responsibilities after obtaining IRB approval, download and read the document "PI Guidance to Responsibilities, Qualifications, Records and Documentation of Human Subjects Research" from the Office of Research Integrity's Guidance and Policy Documents web page [<http://www.research.uky.edu/ori/human/guidance/htm#Presp>]. Additional information regarding IRB review, federal regulations, and institutional policies may be found through ORI's web site [<http://www.research.uky.edu/ori/>]. If you have questions, need additional information, or would like a paper copy of the above mentioned document, contact the Office of Research Integrity at (859) 257-9428.


Chairperson/Vice Chairperson



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Initial Review

Approval Ends
December 2, 2011

IRB Number
10-0859-F4S

TO: Janet Mullins,
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FROM: Chairperson/Vice Chairperson
Non-medical Institutional Review Board (IRB)

SUBJECT: Approval of Protocol Number 10-0859-F4S

DATE: January 10, 2011

On January 6, 2011, the Non-medical Institutional Review Board approved minor revisions requested at the convened meeting on December 3, 2010 for your protocol entitled:

Impact of a Newly Established Kindergarten Lunch Program on Student Attendance, Learning, and Behavior in Adjeikrom, Ghana

Approval is effective from December 3, 2010 until December 2, 2011 and extends to any consent/assent form, cover letter, and/or phone script. If applicable, attached is the IRB approved consent/assent document(s) to be used when enrolling subjects. [Note, subjects can only be enrolled using consent/assent forms which have a valid "IRB Approval" stamp unless special waiver has been obtained from the IRB.] Prior to the end of this period, you will be sent a Continuation Review Report Form which must be completed and returned to the Office of Research Integrity so that the protocol can be reviewed and approved for the next period.

In implementing the research activities, you are responsible for complying with IRB decisions, conditions and requirements. The research procedures should be implemented as approved in the IRB protocol. It is the principal investigator's responsibility to ensure any changes planned for the research are submitted for review and approval by the IRB prior to implementation. Protocol changes made without prior IRB approval to eliminate apparent hazards to the subject(s) should be reported in writing immediately to the IRB. Furthermore, discontinuing a study or completion of a study is considered a change in the protocol's status and therefore the IRB should be promptly notified in writing.

For information describing investigator responsibilities after IRB approval has been obtained, download and read the document "PI Guidance to Responsibilities, Qualifications, Records and Documentation of Human Subjects Research" from the Office of Research Integrity's Guidance/Policy Documents web page [<http://www.research.uky.edu/ori/human/guidance.htm#PIresp>]. Additional information regarding IRB review, federal regulations, and institutional policies may be found through ORI's web site [<http://www.research.uky.edu/ori/>]. If you have questions, need additional information, or would like a paper copy of the above mentioned document, contact the Office of Research Integrity at (859) 257-9428.

N Van Velsor, PhD Ha
Chairperson/Vice Chairperson

Appendix B: Semi-Structured Interview Questions (Adjeikrom, Ghana)

Semi-Structured Interview Protocol

Interview Questions June 2012 for Adults

1. How do you think the school food for education program has affected the lives of the students? Their families? The village of *Adjeikrom, Ghana*?
2. Do you think student attendance has changed over the last year and a half? (since January 2011, start of the school feeding program)
3. Do you think this program has impacted student learning?
4. Do you think program has had any effect on student behavior in the classroom?
5. As a parent or guardian, how do you perceive the school lunch program?
6. Has the school feeding program had any unintended consequences for the village?
7. Has the program affected promotion of students to primary school?
8. If you could change the program, what would you do to make it better?

Interview Questions June 2012 for Households

1. Please describe typical meals for your household for one day.
2. Does your household have children who attend the Kentucky Academy kindergarten? If so, how has the food for education program changed your household meals?
3. Has the kindergarten food for education program had any effect on student or parent time management?
4. How do the meals served at The Kentucky Academy differ from meals served in your home?
5. What else would you like to tell us about the school food for education program?

Appendix B: Semi-Structured Interview Questions (Campton, KY)

Semi-Structured Interview Protocol

Interview Questions prior to school lunch program implementation

1. How do you think the school lunch program will impact the lives of the students? Their families? The community of Campton, KY?
2. How do you think the school lunch program will affect school attendance in kindergarten students?
3. How do you feel providing school lunch will impact learning for students?
4. How do you think providing school lunch will change grades for students? Will they improve, remain the same, or decline?
5. Do you think the school lunch program will have an effect on student's behavior in the classroom, if so how?
6. As a parent or guardian, how do you feel about the school lunch program?
7. Do you ever worry about having enough money to put food on the table?

Appendix C: Open Coding Code Book

Concepts	Definition	Findings
Acceptability	Level of acceptability of school feeding program	Really good, great, wonderful, I like it.
Affective Feelings	Describes how adults feel about the school feeding program.	enjoyment
Assistance	Describes adult perceptions about the need for the school feeding program	Helps, doesn't help
Attendance	Describes student attendance	Improvement, no change, unsure.
Behavior	Describes behaviors students' exhibit.	Focus on school, mind on food, concentrate, pay attention, whiney, crying, not on task, shore attention span, don't care about anything, fight, bribe kids for food and/or money, sleep, steal, bully, bet. *Frequently visit the principal.
Community Enhancement	Describes how the school feeding program affects the community.	Improves everything, impacts community.
Likeability	Describe the degree of likeability of the foods served in the school feeding program.	Like, dislike.
Education	Describes anything pertaining to education.	Interest, desire.
External Distraction	Pertains to anything mentioned about external factors outside of school that affect the children's performance in school.	Home life, drugs, lack of food at home.
Feeding Behaviors	Describes behaviors associated with mealtime.	
Financial Assistance	Pertains to anything describing financial assistance of any kind.	Children no longer asking for money to go buy things.

Financial Insecurities	Describes adult perceptions pertain to not having enough money for bare necessities.	Parents don't have enough money to send with child to school for lunch or snacks.
Food consumption	Describes how well the students eat while at school.	Skip meals, pick at meals, eat 100% of meals.
Food Content	Pertains to the nutritional content of foods served at school.	Nutritious, healthy, full of sugar.
Food security	Describes any issues with participants being food secure.	
Government Assistance	Pertains to if government assistance is provided.	Food stamps.
Gratitude	Degree of gratitude for the school feeding program.	Thankful.
Higher Power/Religion	Describes anything pertaining to religious beliefs or anything referencing a higher power.	Blessing, thankful to God.
Home life	Describes adult perceptions pertaining to anything at home.	Peace at home.
Hunger	Describes anything pertaining to hunger.	
Income Status	Describes income status mention by adults.	Lower income, poor, we make it with govt. assistance.
Indifferent	If adults didn't have an opinion about a question.	It's hard to tell, I'm not sure.
Learning Outcomes	Describes anything pertaining to learning outcomes in the classroom.	It will affect their grades, improvement, increased learning.
Menu Alteration	Describes how school feeding menus have changed.	Changed several times, addition of whole wheat, omitted items.
Need/Necessity	The degree of need for the school feeding program.	We need it, the kids need it.
Parental/Guardian Assistance	Describes adult perceptions about the help the school	Helps the parents, helps families a lot.

	feeding program provides assistance to the parent and/or guardian.	
Parental/Guardian Involvement	Pertains to any kind of parental or guardian involvement at the school.	I sometimes come down here on Wed. to feed the children, the parents aren't bringing any [local produce].
Physiological Feelings	Describes the physical feelings of hungry children.	Stomach cramps.
Satisfaction	Describes the level of satisfaction with the school feeding program.	Satisfied, no complaints,
School Feeding Program Improvements	Describes what adults feel would make the SFP better.	Use more local foods, older students need larger portions, attachment of a farm, would not change a thing.
Student Improvement	Describes how the school feeding program improves the lives of the students.	Feeding is the best we can do for our students.
Teacher Financial Assistance	Pertains to the financial support teachers/school workers provide to student to help alleviate hunger.	Paying for snacks, extra portions.
Teacher Job Satisfaction	Pertains to any mentions of how satisfied or dissatisfied teachers are with their job.	It makes job a lot easier.
Uncertain	Pertains to the level of uncertainty when answering questions.	Not sure, hard to measure.

Appendix C: Axial Coding Results

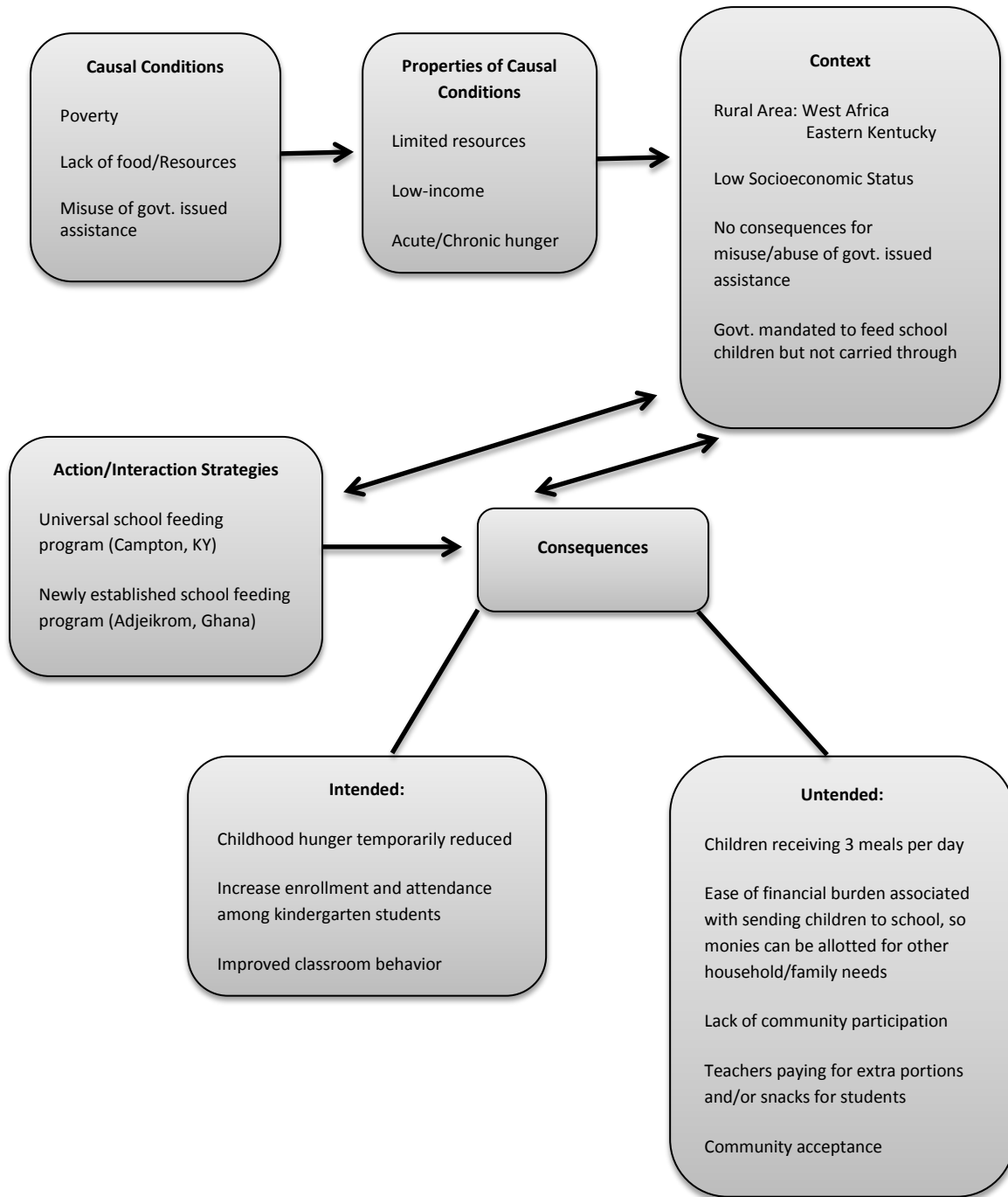
Code	Definition	Properties	Dimensions
Assistance	Excluding hunger and behavior, any perceived benefit provided by the SFP, pertaining to community enhancement, parental impact on family dynamics, and financial impact on the family.	Community Financial Parental	Beneficial- Harmful Change-no change
Community Acceptance of Program	Level of acceptability of school feeding program. Any indication of acceptance (verbal or by actions), or perceived need for SFP improvements, also includes likeability.	Benefits of education Feelings Satisfaction How much they use program Participation	Benefit -no benefits Like-Dislike Satisfied- Dissatisfied Participation-No Participation
Higher Power/Religion	Anything pertaining to religious beliefs or anything referencing higher power.	God	<i>Higher power</i> involvement-No <i>Higher Power</i> involvement
Hunger	Physiological symptoms of hunger	Skin GI	Symptoms- Asymptomatic
Parental/Guardian /Community Involvement	Perception of how involved stakeholders are in the SFP.	Community School Feeding	None- Some
Road Block	Perceived distractions that interfere and or prevent a student from learning.	External Distraction Family Dysfunction	Distracted- focused Disrupting-No effect
Student Impact	Any perceive effect the SFP has on the student excluding hunger.	Attendance Attitudes Behavior at home Behavior at school	Present-Absent Change-No Change Change-No

		Enrollment Learning Truancy	Change Change-No Change Increase-Decrease Increase-Decrease
Teacher Assistance	Anything that pertains to assistance received by the teacher.	Financial Meals received	None-beneficial None-Burden

Appendix D: Paradigm Model

Causal Conditions	Properties of Causal Conditions	Phenomena	Context	Intervening Conditions	Action/Interaction Strategies	Consequences (Intended/Unintended)	
<p>Poverty</p> <p>Lack of food/Resources</p> <p>Misuse of govt. issued assistance</p>	<p>Limited resources</p> <p>Low-income</p> <p>Acute/Chronic hunger</p> <p>Drug use/abuse</p>	<p>Childhood Hunger</p>	<p>Rural Area</p> <p>West Africa</p> <p>Eastern Kentucky</p> <p>Low Socioeconomic Status</p> <p>No consequences for misuse/abuse of govt. issued assistance</p> <p>Govt. mandated to feed school children but not carried through</p>	<p>Excessive distance needed to travel for food</p> <p>Selling of govt. issued assistance for money and/or drugs</p> <p>Absence of govt. assistance</p>	<p>Newly established school feeding program</p> <p>Universal School Feeding Program</p>	<p>Childhood hunger temporarily reduced</p> <p>Increase enrollment and attendance among kindergarten students</p> <p>Improved classroom behavior</p> <p>Community acceptance</p>	<p>Children receiving 3 meals per day</p> <p>Ease of financial burden associated with sending children to school, so monies can be allotted for other household/family needs</p> <p>Lack of community participation</p> <p>Teachers paying for extra portions and/or snacks for students</p>

Appendix E: Graphic Model of Relationships in Paradigm Model



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