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# Reasons Youth Choose or Do Not Choose to Be Involved in 4-H Livestock Projects in Tennessee

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To the Graduate Council:

I am submitting herewith a thesis written by Leigh Erin Fuson entitled "Reasons Youth Choose or Do Not Choose to Be Involved in 4-H Livestock Projects in Tennessee." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Agricultural Leadership, Education and Communications.

Carrie A. Stephens, Major Professor

We have read this thesis and recommend its acceptance:

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(Original signatures are on file with official student records.)

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# **Reasons Youth Choose or Do Not Choose to Be Involved in 4-H Livestock Projects in Tennessee**

A Thesis Presented for the  
Master of Science  
Degree  
The University of Tennessee, Knoxville

Leigh Erin Fuson  
December 2016

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## **Dedication**

I dedicate this thesis to my parents, Tim and Teresa, for always believing in me and for pushing me to fulfill my goals and dreams.

## Acknowledgements

I would first like to thank God for granting me the ability and strength to pursue this degree and complete this project. I owe all I have to Him! Next, I want to thank my understanding husband, Zach, for supporting me during this sometimes stressful process. Thank you for enduring my late night studying and crazy hours while trying to complete my degree and work full-time. I know I was cranky at times and not always pleasant to be around! I love you, and thank you for always being my rock when I need you the most. I am so glad God gave me my Christian farm boy that I always wanted and prayed for!

I would not be where I am today if it were not for my family. My parents, to whom I dedicate this thesis, instilled in me a strong work ethic at a young age and taught me to always reach for my goals and never give up. My mom never let me quit something I started. My dad always made me take responsibility for my animals but was always available to help when I needed him. Thank you for toting me to all those 4-H and FFA meetings growing up. Thank you both for being a strong Christian example and for raising me right! I am also so grateful you moved us out to the farm so that I got experience the farming lifestyle, even though momma is still wanting to move back to town! To my sister, Valerie, for being a positive role model to me and for helping me realize I can do anything I set my mind to. We did not always get along and never had much in common, but I have always looked up to you and saw you pursue your goals. I am so glad I now can consider you a best friend as well as a sister!

To my late grandparents, Charles and Callie: You also helped to instill my work ethic and dedication to Christ. I loved going to your farm growing up to see the cows, horses, and to help pick vegetables from the garden. My love for agriculture started there. Grandpa trusted me with his orphaned calves to bottle feed which not only helped my knowledge of cattle but also helped

me financially in school. I still, to this day, have two cows in our herd that I raised in high school! I miss you both every day and am so proud of the legacy you left behind.

I would also not be where I am today without my 4-H agents, FFA advisors, and professors at Tennessee Tech. I knew when I was in middle school that I wanted to be a 4-H agent or agriculture teacher. I am so thankful that I am able to live my dream and am hopefully making a difference in someone's life just like all of you did in mine. Thank you to Scott Chadwell for taking a chance on this small-town, fresh out-of-college-girl and offering her the career she always wanted. You also gave me the idea for this research project! Thank you for all those years of service to 4-H and UT Extension.

Thank you to all of my co-workers (whom I also call friends) who gave me advice and help along the way. Thank you to the youth across the state who inspire me to do what I do. I can honestly say I love my job because I get to work with you every day while sharing my love and passion for agriculture. Thank you to all my friends who provided much needed stress relief during this time!

Lastly, I could not have completed this thesis without the help of Dr. Carrie Stephens and my other committee members, Dr. Chris Stripling and Dr. Dwight Loveday. Dr. Stripling, you taught me so much about research, something that was a foreign language to me! Dr. Loveday, thank you for your dedication to 4-H livestock programs. Dr. Stephens, thank you for the countless, probably sometimes annoying, emails and phone calls. I know it is probably not easy dealing with distant education students that you cannot meet with face to face! Thanks for the many edits and revisions you helped me with. You have such a great passion for women in agriculture!

## Abstract

The purpose of this study was to find reasons youth choose or do not choose to be involved in 4-H livestock projects. Livestock projects are an important part of 4-H youth development because they teach life skills like responsibility and hard work. However, many youth are unable to participate or do not have the interest. This study sought to discover what motivates some youth to become involved in a livestock project and why others do not.

Focus groups were used as the data collection tool. Two groups of youth livestock participants and two groups of non-livestock participants were utilized. Themes were then discovered and discussed. The themes that emerged of why youth choose livestock projects were (a) family support, (b) interest and a love of animals, (c) farming background, (d) friendships and fun, and (e) the development of life skills. The youth participants in this study all grew up on a farm and had family members that showed livestock. It was also evident they enjoyed showing and making new friends. Some were already realizing they were learning responsibility and hard work.

Five themes also developed of why youth are not involved in livestock projects: (a) time, (b) resources, (c) work ethic, (d) farming background, and (e) interest. Some participants stated they did not have the time, land, or money to be involved in livestock projects but would be interested if they had unlimited resources. Others just did not have interest or did not like animals. For some, it was hard for them to get started in showing livestock, because they did not grow up on a farm or have support from family.

Recommendations included further research on what barriers keep youth from participating and what motivates those youth who are involved in livestock projects. It was also recommended that 4-H agents, agriculture teachers, volunteers, and other leaders provide



opportunities to overcome these barriers, such as, leasing projects, fundraising, and engaging activities to boost interest in livestock and agriculture.

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## Chapter 1

### INTRODUCTION

Positive youth development can be described as both internal and external factors that assist young people to lead potentially successful lives into adulthood (Heck & Subramaniam, 2009). Positive youth development can be measured by competence, confidence, character, connection, and caring, which lead an individual to contribute (6 Cs) to society (Lerner & Lerner, 2013). These 6 Cs can be achieved by positive interactions from adults, being involved in activities that nurture life skills, and being involved in the community (Anderson, 2011). In addition to the 6 Cs, three types of support can also aid in positive youth development: (a) lasting adult relationships, (b) involvement in good neighborhoods, and (c) engaging schools (Benson, 2007). These types of support can be uncommon in today's society which gives more reason for positive youth development programs to be included in one's upbringing (Benson, 2007).

As the largest youth development organization in the United States, 4-H impacts youth by teaching life skills through agriculture, leadership, science, and healthy living (National 4-H Council, 2016). 4-H began over 100 years ago as a way to give rural youth new skills in agriculture and in their homes, but 4-H has grown into a global organization that reaches youth of all backgrounds (National 4-H Council, 2016). These new skills are taught by skilled professionals and volunteers in partnership with the Cooperative Extension Service programs of land-grant universities (National 4-H Council, 2016). Moreover, 4-H is dedicated to positive youth development by assisting young people with challenges in a complex world and helps cultivate future leaders by developing skilled professionals and encouraging civic involvement (National 4-H Council, 2016). Furthermore, 4-H members are four times more likely to be active in their communities, two times more likely to be civically minded, and two times more likely to

be involved in science activities (Lerner & Lerner, 2013). 4-H also integrates projects, such as livestock, to assist with the vision of positive youth development by providing students with leadership and life skills necessary to become successful adults (Anderson, 2011).

Along with 4-H, youth find themselves with many options of clubs and extracurricular activities to be involved in, which include sports, civic and community clubs, music and art, religious activities, and school clubs (Doherty, 2003). Additionally, youth face hyper-scheduling, over-busyness, and loss of family time (Doherty, 2003). There are also many pressures put upon youth, especially high school students, who are expected to perform well at school and build their resumes which can lead to exhaustion, headaches, and even depression and anxiety (Boodman, 2008). According to Phelps, Henry, and Bird (2012), youth may not have time to be involved in 4-H projects anymore. To that end, 4-H membership declines as youth enter high school and become involved in other activities (Baney & Jones, 2013).

### **Statement of the Problem**

This study will seek to find specific reasons why youth choose to participate or not participate in 4-H livestock projects. Reasons of not participating could include but are not limited to lack of land and other resources, lack of time, interest, and family support. Ultimately, this study can help 4-H Youth Development agents and volunteers overcome some of the barriers associated with livestock projects.

### **Purpose and Objectives**

The purpose of this study is to determine reasons why youth choose or do not choose to be involved in 4-H livestock projects. The following research objectives guided this study:

1. Describe the reasons youth choose to become involved in livestock projects.
2. Describe the reasons youth choose not to become involved in 4-H livestock projects.

### **Limitations of the Study**

The results of this study are subject to the following limitations:

1. Focus groups in one state were utilized so caution should be rendered when generalizing the results of this study.
2. Focus groups can cause participants to respond in a more socially acceptable manner rather than reveal true opinion.

### **Assumptions of the Study**

The following assumptions were made for the purposes of this study:

1. Participants involved in this study responded truthfully.
2. Participants have a basic understanding of 4-H livestock projects.
3. The moderator remained neutral when guiding the discussion on the topic.

### **Definitions and Terms**

Positive Youth Development—Internal factors (life skills and character) and external factors (community, caring adults, activities) that help children and teens develop into successful adults (Heck & Subramaniam, 2009; Lerner & Lerner, 2013).

4-H—“4-H is delivered by Cooperative Extension—a community of more than 100 public universities across the nation that provides experiences where young people learn by doing. Kids complete hands-on projects in areas like health, science, agriculture and citizenship, in a positive environment where they receive guidance from adult mentors and are encouraged to take on proactive leadership roles. Kids experience 4-H in every county and parish in the country—through in-school and after-school programs, school and community clubs and 4-H camps” (National 4-H Council, 2016, “4-H is a Community”).

Cooperative Extension—Extension provides non-formal education and learning activities to both

rural and urban communities throughout the country (United States Department of Agriculture, 2016). These programs and activities are research-based to connect over 100 land-grant universities to local communities (United States Department of Agriculture, 2016). Programs include teaching about agriculture, food safety, nutrition, youth development and more (United States Department of Agriculture, 2016). Extension is part of the United States Department of Agriculture (USDA) and the National Institute of Food and Agriculture (NIFA) with funds from the Smith-Lever Act of 1914 (United States Department of Agriculture, 2016).

Livestock Projects—Livestock animals are generally considered those that are raised domestically for food and/or fiber or other farm uses (United States Government Publishing Office, 2010). 4-H livestock projects allow youth to raise animals for show while learning real-world lifeskills through animal science (University of Tennessee Institute of Agriculture, 2015).

## **Chapter 2**

### **REVIEW OF LITERATURE**

#### **Introduction**

Chapter One introduced the purpose of this study and its terms, assumptions, and limitations. Youth development was also presented. This chapter will examine the History of 4-H Youth Development and Cooperative Extension Service. It will give a brief overview of the experiential learning model that is the framework for 4-H's "Learn By Doing" slogan. Finally, previous research on the benefits of 4-H livestock programs and what barriers may keep youth from participating in these programs are explored.

#### **Brief History of 4-H Youth Development**

With simple beginnings in the late 1800s, the idea of 4-H began with rural boys needing new, innovative farming practices (Wessel & Wessel, 1980). Community leaders wanted to connect public education to the local communities (Wessel & Wessel, 1980). This idea led to an Ohio school superintendent named A. B. Graham starting a corn club in 1902 (Wessel & Wessel, 1980). Students completed activities such as soil tests, selecting seeds, rope tying, and using a microscope (Wessel & Wessel, 1980). Graham's clubs grew, and he sought help from the local university (Wessel & Wessel, 1980). Similarly, Will Ottwell in Illinois had a corn growing contest in 1898 with over 500 boys requesting to participate, and by 1904, the contest grew to 50,000 entrants (Wessel & Wessel, 1980). Girls' canning clubs began to emerge, as well as other programs around the country (Wessel & Wessel, 1980). In Iowa, Jessie Fields and O. H. Benson started awarding 3-leaf clover pins to students for their agricultural science projects (Wessel & Wessel, 1980). These pins had an engraved H on each leaf that represented head, heart, and hands (Wessel & Wessel, 1980).

The USDA began taking notice of corn and canning clubs and took interest in introducing new technologies to adult farmers (Wessel & Wessel, 1980). With weather plights and more disaster assistance needed from the government, the USDA wanted to offer more educational programs (Wessel & Wessel, 1980). However, the farmers were not always willing to try these new practices (Wessel & Wessel, 1980). They realized that teaching youth was easier than teaching adults (Wessel & Wessel, 1980). Seaman Knapp was one of many important advocates and frontrunners (Wessel & Wessel, 1980). After much planning, local, state, and federal governments came together to fund what is now 4-H and the Cooperative Extension Service (Wessel & Wessel, 1980).

Livestock and garden clubs also started gaining popularity, and by 1912, the Hs of Head, Heart, Hands, and Health (4 Hs) were developed (Wessel & Wessel, 1980). During World War I, volunteers also became a crucial part of 4-H club work (Wessel & Wessel, 1980). With the success of the first National 4-H Congress in 1922, a National Committee for the organization was formed (Wessel & Wessel, 1980). By the 1920s, the name 4-H and the clover was being used across the country and was known nationally (Wessel & Wessel, 1980). The official clover was adopted in 1924 along with the pledge and motto in 1927 (Wessel & Wessel, 1980). 4-H camps also became popular during this time with the National 4-H Club Camp being held in 1927 (Wessel & Wessel, 1980). 4-H continued to grow and thrive, and The National 4-H Center was established in 1959 in Chevy Chase, Maryland (Wessel & Wessel, 1980).

Today, 4-H has grown to be the largest youth development organization in the United States (National 4-H Council, 2016). The club serves youth in rural, urban, and suburban communities in every state (National 4-H Council, 2016). 4-H members are connected in a variety of ways including both in-school and after school programs, camps, and conferences



(National 4-H Council, 2016). Members help tackle top issues like food insecurity, climate change, sustainable energy, food safety, and obesity (National 4-H Council, 2016). 4-H also offers science, technology, engineering, and math topics like robots, rockets, animal science, and environmental conservation to help youth face challenges of the 21st century (National 4-H Council, 2016).

### **Brief History of Cooperative Extension**

The Smith-Lever Act of 1914 ultimately created the Cooperative Extension Service in partnership with the United States Department of Agriculture, the National Institute of Food and Agriculture, and over 100 land grant universities across the nation (West Virginia University, 2016). The Morrill Acts of 1862 and 1890 helped develop land grant universities to provide education in agriculture, military tactics, and mechanics (West Virginia University, 2016). The Hatch Act of 1887 also assisted in funding agricultural experiment stations (West Virginia University, 2016).

Today, extension provides non-formal education to both youth and adults in a wide variety of human, animal, and plant needs in urban and rural areas (United States Department of Agriculture, 2016). These educational programs and activities were developed to teach practical, scientific, and research-based information to the public in agriculture and consumer education (United States Department of Agriculture, 2016). Extension programs can be found in every state in America (United States Department of Agriculture, 2016).

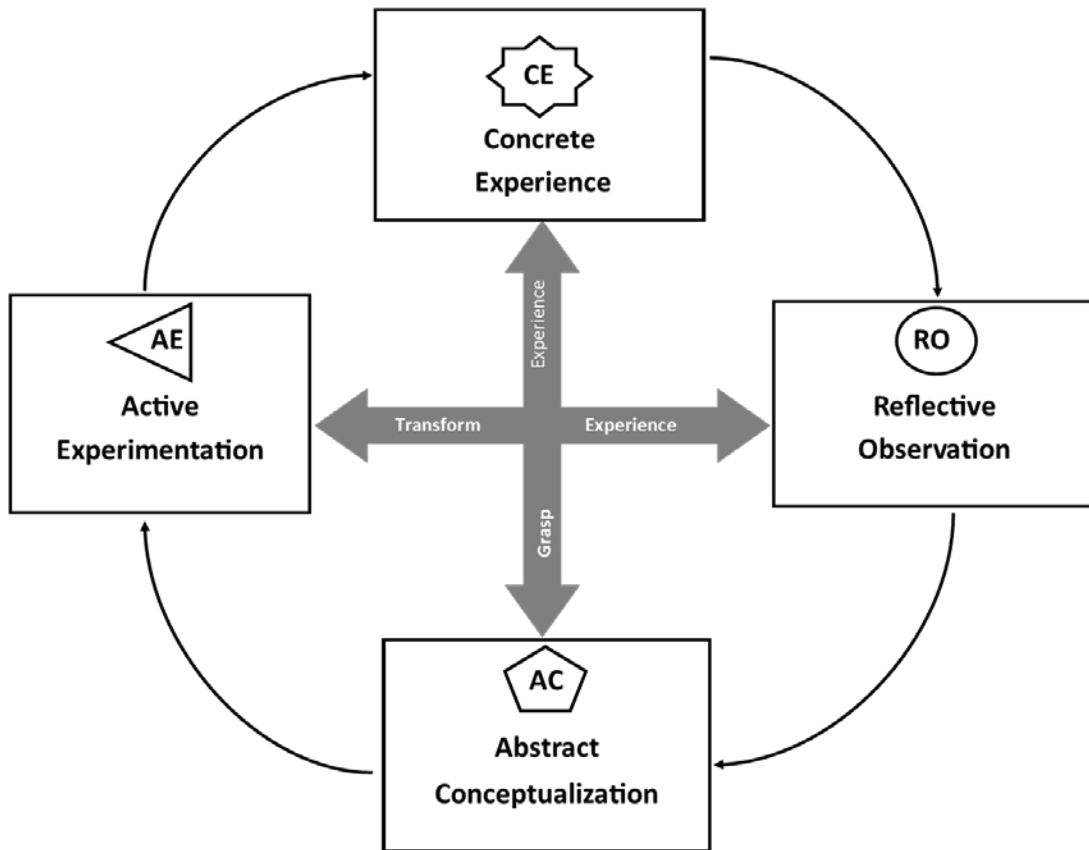
### **Experiential Learning**

The theoretical framework that guided this study was Kolb's Experiential Learning Model. Kolb (2015), who followed the work of Dewey, Lewin, and Piaget, stated that "learning is a continuous process grounded in experience" (p. 38). Kolb (2015) explained the importance

of interacting with the environment in order to fully gain experience in a subject, and that it takes both internal and external conditions to learn. Kolb's model (see Figure 1) demonstrated that a person goes through four steps to truly gain knowledge: (a) concrete experience, (b) observation and reflection, (c) forming abstract concepts, and (d) testing new situations from experimenting (Kolb, 2015, p 51).

During the concrete experience stage, a person is provided with an immediate, personal experience which is the basis of learning (Kolb, 2015). However, simply having an experience is not enough; something must be done with it (Kolb 2015). During the reflecting, observing, and processing stage, that initial experience is thought upon and broken down to decide what is important and then questions are raised (Diem, 2004). Experiences can also be shared with others during this stage (Diem, 2004). Once these processes occur, a person can begin to think abstractly and start to grasp the new concepts (Kolb, 2015). Questions are generalized to help relate the new concept with past experiences (Diem, 2004). Finally, this new experience is transformed into active experimentation by being tested, and it serves as a guide in creating new experiences (Kolb, 2015). The learner should then be able to apply the new knowledge in their everyday life (Diem, 2004). Therefore, learning requires a grasp of an experience and then a transformation must happen to form knowledge (Kolb, 2015).

Kolb's learning model examines the important link between education, work, and personal development (Kolb, 2015). An advantage of using the experiential learning includes using multiple teaching and learning methods while being student-centered (Diem, 2004). Through this experiential learning, youth can build self-esteem through the discovery process and have fun while learning (Diem, 2004). Curiosity drives learning and causes anticipation for the future (Kolb, 2015).



*Figure 1*

Experiential Learning Model. Kolb, D. A. (2015, p.51).

Educators and researchers are becoming more interested in long-term learning effects through informal settings (Fenichel & Schweingruber, 2010).

### **Research on Advantages of 4-H Livestock Projects**

Experiential learning goes hand-in-hand with livestock projects because of all the life skills and real world experience that is gained (Boleman, Briers, & Cummings, 2004). One study conducted in Texas found six common themes of learning from youth livestock exhibitors: (a) social relations, (b) character, (c) family ties, (d) competition, (e) new environments, and (f) finance for education (Davis, Keith, Williams, & Frazee, 2001). Furthermore, livestock exhibitors are taught to be productive, contributing members of society while making important social contacts to help them in college and future careers (Davis, et. al., 2001). Some character skills gained from youth livestock exhibitors included responsibility, work ethic, sportsmanship, and decision making skills (Davis, et. al., 2001). Other skills included were communication and goal setting (Miller, 2006). Also, youth livestock exhibitors used competition earnings or animal sales to help fund college and other future endeavors (Davis, et. al., 2001). Livestock exhibitors also felt more prepared to enter the agricultural work force with more understanding of animal husbandry and technical skills (Miller, 2006).

One study published in *Business and Professional Communication Quarterly* identified the top ten soft skills that are most important in the workplace: (a) integrity, (b) communication, (c) courtesy, (d) responsibility, (e) positive attitude, (f) social skills, (g) professionalism, (h) flexibility, (i) teamwork, and (j) work ethic (Robles, 2012). These skills could potentially be learned through youth livestock projects (Rusk, et al., 2003). 4-H livestock projects can still be an important aspect of 4-H due to workforce preparation and life skills that are obtained (Rusk, et al., 2003). In addition, other skills such as (a) self-confidence, (b) decision making, (c) good

sportsmanship, and (d) problem solving could also be obtained through 4-H livestock projects (Rusk, et al., 2003). Furthermore, Walker (2006) found that beef exhibitors had moderate gains in life skill development, and stated that they were able to set goals and priorities while showing a responsible attitude. Also, Miller (2006) established that youth livestock exhibitors had stronger character development and higher moral and ethical values than their non 4-H peers. 4-H members involved in livestock projects can also participate in activities like the skillathon contest which is a knowledge based test covering livestock industry knowledge like breeds, health, nutrition, and quality assurance (Davis, Stripling, Stephens, & Loveday, 2016; Harris, 2015). Tennessee youth involved in the skillathon contest reported having learned to (a) respect others, (b) solve problems, (c) set goals, (d) good manners, (e) honesty, (f) and can handle mistakes (Davis, et al., 2016; Harris, 2015).

Science, technology, engineering, and mathematics (STEM) are very important in today's education world, and livestock projects can teach these skills through experiential learning (Wooten, Rayfield, & Moore, 2013). Previous research has shown that livestock projects can aid students not only with life skills like decision making and responsibility, but in their science and biology classes as well (Rusk, Summerlot-Early, Machtmes, Talbert, & Balschweid, 2003). Science concepts from a livestock project can include anatomy and physiology, genetics, use of new technology, engineering facilities, animal health, and others (Wooten, et. al., 2013). 4-H provides opportunities for students to learn these abstract science skills through non-formal settings such as showing livestock (Wooten et al., 2013). Teaching science in non-formal settings is advantageous because it can reach people of all ages with different knowledge levels and experience (Fenichel & Schweingruber, 2010). No matter what career these students choose,

the life skills gained by experiential learning through livestock projects could benefit youth in the future (Rusk et al., 2003; Boleman, et al. 2004).

### **Research on Barriers of 4-H Livestock Projects**

There are certain barriers that keep youth from participating in livestock projects. Although there have been studies on the importance of livestock projects, research has been lacking on the specific reasons youth choose not to be involved in livestock projects. Many youth are not able to take part in agriculture related projects due to lack of land (Feighery, Ingram, Li, & Redding, 2011). Students living within the city limits often are unable to raise animals due to restricted ordinances (Cummins & Nash, 2014). This lack of resources and the high cost of the project is one of the most limiting factors (Weikert, Hoover, Radhakrishna, & Swinker, 2015). Most Americans are three generations removed from the farm, and only 2% of the population are involved in farming (American Farm Bureau Federation, 2016). There is also a negative perception of being in 4-H that it is only for farmers (Phelps, Henry, & Bird, 2012). Teens may also lack interest in agriculture careers, which has created a labor deficit in the industry, not only in the United States, but internationally (Feighery, et al., 2011). Therefore, a lack of agriculture knowledge in general may hinder youth interest in becoming involved in livestock projects.

Studies show that youth who are involved in livestock projects do so because their family and friends also participated in these projects, which means that another barrier could be lack of family support (Baney & Jones, 2013; Walker, 2006; Weikert, et.al., 2015). Furthermore, as 4-H members enter high school, the drop-out rate goes up because of competition from other activities and time constraints (Baney & Jones, 2013). Therefore, there may not be enough time

to be involved in 4-H livestock projects (Phelps, Henry, & Bird, & 2012). This study will help determine why today's youth seek to be involved or not be involved in 4-H livestock projects.

## **Chapter 3**

### **METHODOLOGY**

Chapter One provided an introduction to youth development and 4-H. The purpose of this study and the objectives were given, as well as limitations and assumptions. Finally, key terms were discussed to help clarify important components of this study.

Next, Chapter Two briefly described the framework and research that guided this study. It discussed the History of 4-H and Extension while providing information about experiential learning. Furthermore, previous research on 4-H livestock projects were given.

Chapter Three will describe the methodology used to conduct this study. Qualitative research, along with focus groups, are discussed. Sample population, data collection, and data analysis are addressed, as well.

#### **Researcher Subjectivity**

Two researchers were involved in this study: an agricultural leadership, education, and communication graduate student and one professor of agricultural leadership, education, and communications at the University of Tennessee at Knoxville. The graduate student holds a bachelor's degree in agriculture education from Tennessee Technological University and is a 4-H Youth Development Extension Agent and 4-H alumni. The professor has experience in both formal and non-formal agriculture education and has published works in the field. She has knowledge and experience with qualitative data collection methods, including focus groups.

Together, the researchers believe 4-H Youth Development and livestock projects are an important part of life skill development for today's youth. We understand that not all youth are able to participate in livestock projects but want to discover why. Understanding why youth



choose or do not choose to be involved in livestock projects will help determine ways to provide ample opportunities across Tennessee in 4-H Youth Development animal agriculture programs.

### **Research Design**

Qualitative research focuses on understanding behaviors and social phenomena (Ary, Jacobs, Sorenson, & Walker, 2014). Because this study is concerned with personal decisions and interests about 4-H livestock projects, qualitative research was utilized. The type of qualitative research is the basic qualitative or interpretative study (Ary, et. al., 2014). The purpose of basic qualitative research is to understand and interpret the world or experience of another (Ary et. al., 2014). This type of research also seeks to find points of view of the participants and identifies recurring patterns (Ary et. al., 2014).

### **Target Population & Sampling**

The target population for this study was 4-H members in 4th-12th grades living across Tennessee. In 2014, there were over 168,600 4-H members in Tennessee (University of Tennessee Institute of Agriculture, 2016). Of these members, there were approximately 725 that participated in the state livestock shows which included beef cattle, sheep, swine, and goats. (University of Tennessee Institute of Agriculture, 2015).

Four focus groups were utilized. During the study, two focus groups contained a sample of 4-H members who were involved in livestock projects at two different state shows. The third and fourth focus groups contained a selection of 4-H members not involved in livestock projects. These groups were selected from another regional or state 4-H event, Archery and Consumer Decision Making, not associated with livestock.

The researcher, a Tennessee 4-H Extension Agent, contacted fellow Extension agents in Tennessee via email to identify participants that fit the criteria of the aforementioned focus groups that would be attending the 4-H events. The researcher sent consent and assent forms and invitations to participate to possible participants. A copy of the consent/assent forms can be found in Appendix A and B, respectively.

### **Participants**

A total of 28 youth participated in this study. Thirteen were involved in livestock projects. Of those thirteen, there were seven Caucasian females, one Hispanic female, and five Caucasian males. Fifteen participants were not involved in a livestock project. They included four Caucasian females and eleven Caucasian males. Youth were in a variety of grade levels from 4th-12th.

### **Data Collection and Instrumentation**

Focus groups were the data collection tool for this study. Focus groups are group interviews that focus on a particular issue (Ary, et. al., 2014). Focus groups are often used to explore new research ideas, research hard to observe topics like attitudes and decision-making, and gain perspectives and experiences (Cohan & Crabtree, 2006). Focus groups also help enable the researcher to directly target the topic and provide comparisons about experiences (Cohan & Crabtree, 2006). Unlike other types of research methods, focus groups also allow researchers to examine motivation (Morgan, 1993). Identifying motivations for being involved or not involved in livestock projects was a purpose of this study. Normally, three to five focus groups are utilized for research (Morgan, 1997). Having a small number of groups can make the study vulnerable if one group fails due to no-show participants or because of an unusual group that

provides less than useful information (Morgan, 1997). Random sampling is rarely obtainable due to the small sample size and the participants sharing a common interest (Morgan, 1997). As a rule of thumb, focus groups usually contain 6 to 10 participants each (Morgan, 1997).

These groups allowed for open discussion to assist the researcher identify barriers associated with livestock projects. A semi-structured interview approach was used for the focus groups due to there being a strong, preexisting agenda for the research (Morgan, 1997). The researcher served as a moderator to make sure the groups discussed the intended subjects and stayed on topic (Morgan, 1997). Because there were a total of four focus groups being utilized, it was important to use standardization so that each group has the same questions and topic areas (Morgan, 1996). This allowed for more comparability when analyzing data (Morgan, 1996). The following researcher created questions were utilized:

Questions for 4-H members involved in livestock projects:

1. How did you become involved in a 4-H livestock project?
2. Are you involved in any other 4-H projects?
3. Are you involved in any other extracurricular activities? If so, how do you balance your time?
4. Why do you enjoy livestock projects?
5. Is there anything you do not like about raising livestock?
6. Do you live on a farm? If not, do you lease your animals?
7. Why do you think some 4-H members are not involved in livestock projects?
8. How would you encourage 4-H members to get involved in a livestock project?
9. Do you feel as if 4-H livestock projects are gaining or losing interest?
10. Do you have friends or family involved in livestock projects?

Questions for 4-H members not involved in livestock projects:

1. How did you become involved in 4-H?
2. Are you involved in other extracurricular activities?
3. What are your main 4-H project areas or activities?
4. Have you ever been involved in a livestock project? If so, why did you quit?
5. Why are you not involved in a livestock project?
6. If you had unlimited resources, would you want to be involved in livestock projects?
7. Do you live on a farm?
8. Are any of your friends involved in livestock projects? Does/did anyone in your family raise livestock?
9. What do you think is the biggest barrier that keeps 4-H members from being in livestock projects?

Focus group sessions were documented by using visual recordings, and then audio was transcribed. Video was beneficial because even the most accurate note-taking can never be a substitute for listening to the emotional exchange of participants during the discussion (Morgan, 1997). Ethical concerns can be an issue with focus groups when recording of sessions occurs (Morgan, 1997). For this study, participants were notified ahead of time that recording of the focus group would be conducted. In addition, the participants were told the recording would only be used for researcher use and will not be published or shown publically.

Focus group discussions lasted approximately 20 minutes. Focus groups met in a neutral location at the various shows and contests. The focus group meetings did not interfere with the participant's involvement at the events.

## Data Analysis

After listening to each focus group discussion, the researcher transcribed the discussion verbatim. Participants were assigned a number to allow for anonymity. Since four focus group interviews were conducted, four sets of numbers were assigned. Those participants not involved in livestock projects were assigned A1, A2, and so forth, and B1, B2, and so forth. Groups of participants involved in livestock projects were assigned C1, C2, and so forth, and D1, D2, and so forth.

After video was transcribed, the researcher searched for key ideas in order to categorize themes (Morgan, 1997). Participants' words and the group context all played a role in the development of themes (Morgan, 1997). The researchers read through the transcribed data several times to develop themes relevant to this study. These focus groups helped determine opinion and attitudes about livestock projects (Morgan, 1997). The researchers then identified reasons why youth choose or did not choose to be involved in livestock projects in order to determine the barriers and obstacles associated with them. Themes associated with why youth choose livestock projects were (a) family support, (b) farm background, (c) interest and love of animals, (d) friendship and fun, and (e) life skills gained. Themes of why youth do not choose livestock projects were a lack of (a) time, (b) resources, (c) work ethic, (d) farm background, and (e) interest.

## **Chapter 4**

### **RESULTS**

Chapter One focused on positive youth development and an introduction to 4-H. It outlined the importance of these programs and how it impacts today's youth. The purpose of the study and key terms were outlined. Assumptions and limitations of the study were also stated. Chapter Two described the History of 4-H and Cooperative Extension. The literature review was provided that included the experiential learning model and previous research on 4-H livestock projects.

Chapter Three covered the methodology of this study and explained how the research was conducted. It explained qualitative research and focus group data collection. Details of the participants were given along with sampling procedures and data analysis.

Chapter Four will explain the findings from the focus group discussions. Various themes about why youth choose or do not choose livestock projects were discovered and will be discussed. The themes of why youth choose livestock projects were (a) family support, (b) farm background, (c) interest and love of animals, (d) friendship and fun, and (e) life skills gained. Themes of why youth do not choose livestock projects were a lack of (a) time, (b) resources, (c) work ethic, (d) farm background, and (e) interest.

#### **Findings of Why Youth Choose to be Involved Livestock Projects**

Data analysis from the focus groups results revealed five major themes of why 4-H members become involved in livestock projects. These themes were (a) family support, (b) farm background, (c) interest and love of animals, (d) friendship and fun, and (e) life skills gained.

## **Family Support**

The first theme that emerged from livestock exhibitors was that they had lots of family support and ties to livestock showing. Almost all (C1, C3, C4, C5, C8, D2, D3, D4, D5) 4-H members involved in livestock projects said they had a family member that helped them get started, and one (D1) who said a friend got her involved. Participant D5 stated, “My dad grew up showing cows, so I thought I would carry on the tradition.” Participant D6 said, “I have grown up with my sisters and cousins showing, and I have watched them, so I have just learned to love it.” C5 stated it had always been a “family thing” while C8 said, “my family has always shown.” Some participants (D2, D4, D5) even specified parents and family members being in 4-H when they were young.

## **Farm Background**

The 4-H livestock exhibitors who participated in the study lived and grew up on a farm. None of the participants leased their show animals when asked. Participant C2, said, “I have always been around livestock. I have always thought that when I was old enough to do 4-H, I would show.” C7 stated, “I have been around cattle my whole life, and I thought I would just start showing.” Participants talked about their families raising livestock and the animals being readily available. “My dad raises sheep, so I have been showing since I was about two,” said D3. Participant C3 stated, “I have lived on a farm my whole life.” When asked why they enjoyed livestock projects, participant D4 simply stated, “I have been in it [showing] my whole entire life.” Having resources at hand was a real benefit to these youth. However, participant C5 thought that livestock projects are often advertised the wrong way, that it is only for farmers: “You can also lease your cattle, so you can still show even if you do not live on a farm.”

### **Interest and Love of Animals**

The next theme that developed was that youth livestock exhibitors have an initial interest and love for livestock animals. After asking why they enjoyed livestock projects, D1 simply stated, “Because I love animals!” Participant D1 also discussed being involved in 4-H livestock judging and how that got her interested in showing. Participant C2 expressed having a passion for animals and agriculture. One participant (C8) even said she was an only child, so the animals were her friends growing up. C4 said, “I like to watch my cattle progress and see how well they do.” Another (D2) talked about how she started out in the poultry project and her love grew to hogs and sheep. She wanted to show a steer the following year.

### **Friendship and Fun**

It was evident that the livestock exhibitors enjoyed what they do. Three participants (C1, C3, C5) said they enjoy livestock projects, because they get to meet new people and make new friends. Participants C4 and D5 included making friends as a benefit to participating in livestock projects and how they would encourage other youth to get involved. Other participants (C4, C5, C7, D2, D3, D5) noted how much fun being involved in a livestock project is. C5 stated, “I think it is fun to show cows, and I think it is good to make friends and involve yourself.” Participant C7 noted, “You have fun and you learn a lot,” while C2 said, “I just want to keep doing it because it is fun.” Participant D5 said, “It is also really fun to be able to learn and grow with the sheep or pig or whatever it is you are showing.” All participants (C1, C2, C3, C4, C5, C6, C7, C8, D1, D2, D3, D4, D5) seemed to be very happy and enthusiastic about their livestock experiences, even when asked about what they do not like about it.



## **Life Skills**

Some 4-H members who participated acknowledged they were gaining important life skills and experiences through participating in a 4-H livestock project. Participants D2 and D5 both discussed responsibility in their group. D2 said, “It teaches responsibility for one thing, which is something I lacked for a long time.” D5 stated, “It gives you responsibility because you are taking care of something.” Participant C6 is learning a good work ethic, “It is a good experience, and it allows you to work hard and see your work pay off.” C5 also had a similar comment, “It is a lot of hard work, but it pays off in the end.” Work ethic was also a common theme when participants were asked why youth choose not to be involved in livestock projects. These exhibitors (C1, C3, C4, C6, C7, D2, D3) realized a strong work ethic is needed in order to succeed in at livestock project.

### **Findings of Why Youth Do Not Choose to be Involved in Livestock Projects**

Data analysis discovered common themes of why 4-H members are not involved in livestock projects. These themes included lack of (a) time, (b) resources, (c) work ethic, (d) farm background, and (e) interest. Questions regarding barriers of youth livestock projects were asked to all four focus groups, and some participants who choose to be involved in livestock projects weighed in on why they thought other youth choose not to be involved in livestock projects.

## **Time**

Even though participants involved in livestock projects were also involved in other activities at school and in 4-H, lack of time was a major theme that developed throughout the discussions. Participants not involved in livestock projects (A1, A4, B3, B5, B6, B8) said time was a big factor of why they were not involved. Participant B3 said he would have land to put

livestock but did not have enough time. Participant A5 stated “Time; I think that plays a big factor. It is time consuming, like it really is,” when asked what the biggest barrier that keeps youth from being involved in livestock. In addition, A6 stated it was a big time commitment to train animals. Time also was a reason that youth involved in livestock projects (C6, C8, D2, D3, D5) thought that other youth were not involved.

### **Resources**

Lack of money and land was an obvious barrier of why youth do not choose livestock projects among all four groups. Several participants (A1, A5, A6, B2, B3, B5, B4, B6, B8) said they could not be involved due to lack of resources. Participant B3 stated, “I would be interested but we do not have land, or really any resources.” Participant A5 exclaimed, “It costs a lot of money!” A4 said, “We live in a suburban neighborhood so we do not have the space.” When asked if they had unlimited resources, would they be interested in livestock projects, some youth (B1, B2, B3, B5, B6, B7, B8) said yes. Youth involved in livestock projects (C1, C6, D2, D5) also mentioned lack of land as a limiting factor when asked why they thought more 4-H members did not participate. Livestock exhibitors, D3 and D4, spoke about how much money it costs as something they did not like about raising livestock. Participant C1 also realized that many 4-H members do not live on farms.

### **Work Ethic**

Focus group discussions revealed that lack of work ethic can cause youth not to be involved in livestock projects. Both exhibitors and non-exhibitors realize the work and commitment that raising animals entails. When asked if they would be involved in a livestock project if they had unlimited resources, one participant (A7) stated, “I probably would not

because we have some friends that own a farm, and I look after their animals from time to time, and it is really hard!” A5 agreed by saying, “It is really hard work.”

Youth involved in livestock projects (C3, C4, C6, C7, C8, D2, D3) thought that other youth do not want to put in the effort when asked what keeps people from participating. C3 said, “I think that most people do not want to put forth the effort and the work.” D2 stated, “They kind of shy away from it because of all the work that has to go into it.” Participant C7 even said most youth today are lazy. When livestock exhibitors were asked what they did not enjoy about livestock projects, hard work was a common answer (C1, C5, C6, C7, D2, D3). Participant C8 said, “I think it [livestock projects] is losing interest because a lot of people look at it as all work and no play. And nobody really wants to do anything like that.”

### **Farm Background**

Sometimes it can be hard to be involved in a livestock project if youth are not raised on a farm or have no background in farming. Participant B3 told a story of when he tried showing a cow but gave up because he did not have a lot of help or background knowledge. He said, “It was pretty hard to get started in it. If you do not start off in that (livestock), they do not really want to teach it to you.” Later in the discussion, participant B4 agreed by saying, “If you are not brought up in it or have your roots in it, you are not going to get a lot of help, so it kind of discourages you.” A7 said, “My dad does not like the idea of us having animals.” As stated earlier, family support and having a farm background is a big factor of why youth choose to be involved in livestock projects. Therefore, lack of support and a farming background can hinder youth from showing.

**Interest**

Some youth (A1, A2, A3, A5, A6, A7, B4,) simply are not interested in livestock projects. Participant A2 said, “I did livestock judging for a year and just really did not enjoy it. I am not an animal person.” Participant A5 even said, “I have several cows but I do not show them because I think they are really gross!” For instance, if someone does not like animals, (D1) or have a passion for agriculture (C2), they will probably not want to get involved. C4 thinks the livestock industry sometimes has a negative reputation which can keep people from being interested, and D5 thought youth are not as interested anymore.

## Chapter 5

### CONCLUSION

As stated in Chapter One, the purpose of this study was to discover the reasons youth choose or do not choose to be involved in livestock projects. The chapter also gave an introduction to the importance of positive youth development and 4-H. Key terms were identified as well as assumptions and limitations of this study.

Chapter Two provided the framework of the study and included a brief history of 4-H and the Cooperative Extension program. Kolb's Experiential Learning model was discussed as it applies to 4-H livestock programs. Previous research about 4-H livestock projects was also given.

Chapter Three was the methodology section. Qualitative research and focus group information was discussed. In this study, four focus groups were utilized. Participant sampling and the researcher bias statement was detailed.

Chapter Four gave the results from the study. Themes that were discovered were discussed about how they relate to the study. Chapter Five will provide conclusions and implications for Extension professionals.

#### **Why Youth Choose to be Involved in Livestock Projects**

This study found five common themes of why 4-H youth chose to be involved in a livestock project: (a) family support, (b) farm background, (c) interest and love of animals, (d) friendship and fun, and (e) life skills gained. All participants from this study who were involved in a livestock project lived on a farm and had support from family members. Most participants had parents or siblings who showed livestock and were able to help, encourage, and teach these

youth about livestock. Other studies have shown family influence as a big factor of 4-H livestock involvement as well (Baney & Jones, 2013; Walker, 2006; Weikert, et.al., 2015).

Youth who show livestock must also have an initial interest in animals or agriculture in order to enjoy the project. It was apparent that participants in this study loved their animals. It was also evident that participants had fun with their livestock projects and made new friends, so they wanted to continue being involved. This was similar to a study by Baney and Jones (2013) that showed 81% of youth livestock exhibitors continued to be involved because it was fun.

Some youth participating in the study were aware that they were learning responsibility and developing a strong work ethic. Even though showing and training livestock is hard work, they know it pays off in the end. Learning life skills is an important part of 4-H livestock projects, and that is why they are still such an important aspect of the program (Boleman, et. al., 2004; Rusk, et. al., 2003; Walker, 2006).

These results were consistent with two Tennessee studies of why youth are involved in livestock skillathon contests as well. Youth reported that a parent or teacher wanted them to participate, they thought it would be fun, and they wanted to learn skills like self-confidence and goal setting (Davis, et. al., 2016; Harris, 2015). These youth also wanted to learn more about their animals and agriculture careers (Davis, et. al., 2016; Harris, 2015).

### **Why Youth Do Not Choose to be Involved in Livestock Projects**

Overall, five themes emerged as the top barriers that keep youth from participating in 4-H livestock projects. They are the lack of (a) time, (b) resources, (c) work ethic, (d) farming background, and (e) general interest. These themes were discussed throughout all four focus groups of youth involved and not involved in livestock projects.

Youth are extremely busy, and this impacts their lack of involvement in livestock projects (Doherty, 2003; Boodman, 2008). Almost all the participants in this study were also involved in other extracurricular activities including sports, church, music, and other 4-H judging teams. Livestock require youth to train, care, and show their animals (Baney & Jones, 2013). When asked why they were not involved in a livestock project, youth participants responded with lack of time and other resources. Results were consistent with a Pennsylvania study saying financial cost was the biggest barrier of livestock projects (Weikert, et. al., 2015). Some participants stated that they would like to be involved in a livestock project if they had more time or the land to do it. Since most youth are several generations removed from the farm and do not have a farming background, it can be difficult to get started in a livestock project. Out of Tennessee's 186,600 members, only 7% live on farms (University of Tennessee Institute of Agriculture, 2016).

Some youth also realize the work that goes into a livestock project and simply do not want to participate. Youth that do show livestock say their peers do not have the work ethic to be involved. Some youth also just do not like livestock animals and would rather be involved in other activities. One participant agreed with Phelps, Henry, and Bird (2012) that 4-H livestock projects have a stereotype that they are for farmers only. If 4-H members do not have the initial interest in livestock or agriculture, they will not want to put forth the work and money required to participate.

### **Recommendations**

Because of valuable life skills that are gained and the need for an agriculture work force, youth should continue to be involved in livestock projects. The researchers recommend finding ways to overcome youth livestock barriers by providing exciting opportunities to keep youth

interested. These opportunities might include (a) camps and conferences, (b) livestock judging and skillathon activities, (c) animal science labs, and (d) agriculture career days and tours.

Animal science camps and workshops that offer STEM related activities like necropsies and dissections, ultrasounds, and feedstuff calculations can teach science and math skills while introducing youth to livestock and agriculture careers (Rusk & Machtmes, 2002). If youth can get involved in a livestock related activity other than raising and showing, it might spark interest for further involvement. Livestock projects will not only help in any career field but can also encourage more youth to choose agricultural career paths.

It is up to county extension agents, agriculture teachers, and breed associations to discover ways to prevent the decline of livestock projects and to help solve other issues that may arise (Anderson, 2011). These leaders need to find ways to reach a more diverse audience when it comes to livestock projects (Weikert, et. al., 2015). 4-H leaders can also do a better job of advertising livestock clubs and recruiting non-traditional members (Weikert, et. al., 2015). Leaders must think outside of the box in order to provide new ways of teaching life skills through animals to today's youth (Vondy Wacker & Boyd 1992). Youth already involved in livestock projects can also be an important resource to help promote and educate youth not involved. Time-management courses might also be a great resource to today's youth considering how many activities they are involved in. Parents and family members should also be educated about the benefits of livestock projects so that they can encourage their children to participate.

In addition, leaders and volunteers can provide opportunities to allow access to animals without ownership or leasing projects (Cummins & Nash, 2014; Vondy Wacker & Boyd, 1992; Weikert, et. al., 2015). 4-H agents can try to find local producers that would be willing to work with youth with limited resources. Fundraisers and sponsorship could also be an option to help



cover livestock ownership costs. Because of land, money, and time barriers associated with livestock projects, the researchers recommend youth starting with smaller scale projects like goats and poultry before moving into larger animals like cattle.

Finally, further research should be conducted across other states to see what barriers are associated with livestock projects in different regions. This study can be replicated using focus groups, or a survey tool could be created to reach more participants similar to a study by Weikert, Hoover, Radhakrishna, and Swinker (2015). The researchers would also recommend future studies about factors influencing participation in horse and poultry projects. Future research could also be conducted on youth who raise livestock but choose not to exhibit them. It is important to know why youth choose livestock projects in order to retain them in the program. Knowing what motivates them to stay involved can help reach other youth who might not be interested in livestock projects at first glance.

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## Appendix



**Appendix A**

## Consent Form

**Adult Informed Consent Form****INFORMED CONSENT STATEMENT****Reasons Youth Choose or Do Not Choose To Be Involved in 4-H Livestock Projects in A Southern State****INTRODUCTION**

4-H members are invited to participate in this study to help determine barriers associated with 4-H livestock projects and how 4-H professionals can overcome these obstacles. The study is seeking to find reasons youth are choosing not to be involved in livestock activities.

**INFORMATION ABOUT PARTICIPANTS' INVOLVEMENT IN THE STUDY**

Participants will take part in focus groups, or group interviews, about their involvement in 4-H Youth Development. Participant involvement will take place at a state 4-H event: State Archery, State Sheep Expo, or State Beef Expo. Depending on the discussion, the time commitment could range from 40 minutes to an hour and a half in time. Youth are encouraged during the focus group to answer the questions they feel comfortable answering and sharing their experiences with other participants. Youth are never required to share information that they are not completely comfortable sharing. Youth responses will be recorded, by both audio and visual means, and transcribed for accuracy. These recordings will be used by the researcher only and will never be published or shown publically.

**RISKS**

This study contains minimal risk. Confidentiality of topics discussed and revealed in the focus group cannot be guaranteed. Focus group participants will know what has been said and by whom.

**BENEFITS**

4-H members will have the opportunity to share about their experiences in 4-H. Participation and discussion will allow for participants to share about why they choose to be involved in livestock projects or not. Disclosing this information and participation in the focus group will allow for further development and improvement of 4-H Youth Development.

\_\_\_\_\_ Parent/Guardian initials

**CONFIDENTIALITY**

Your child's identity will be kept confidential to the extent provided by law. When the study is completed and the data has been analyzed, the information will be destroyed. Names will not be used in any report. The audio and video files will be stored in a locked file in 325 Morgan Hall and the transcripts of the audio and video files will be stored on a password-protected University computer. The audio and video files will be destroyed after transcription, and only the researchers will have access to the files and transcripts.

**CONTACT INFORMATION**

If you have questions at any time about the study or the procedures, (or you experience adverse effects as a result of participating in this study,) you may contact the researcher, Leigh Fuson, at 722 S. Congress Blvd, Smithville, TN 37166, [lfuson2@utk.edu](mailto:lfuson2@utk.edu), or (615) 597-4945. You may also contact the researcher's advisor, Carrie Stephens, at [cfritz@utk.edu](mailto:cfritz@utk.edu) or (865)974-4830.

If you have questions about your rights as a participant, contact the Office of Research Compliance Officer at UT Office of Research IRB Compliance Officer at [utkirb@utk.edu](mailto:utkirb@utk.edu) or (865) 974-7697.

**PARTICIPATION**

Participation in this study is voluntary; youth may decline to participate without penalty. If youth decide to participate, they may withdraw from the study at anytime without penalty and without loss of benefits to which they are otherwise entitled.

**CONSENT**

I have read the above information. I have received a copy of this form. I agree to let my child participate in this study. I will discuss the project with my child and have him/her sign the included assent form if he/she understands the study.

Participant (Youth) Name \_\_\_\_\_

Parent/Guardian's Signature \_\_\_\_\_ Date \_\_\_\_\_

I give permission for video/audio recording of my child, \_\_\_\_\_

Parent/Guardian Signature \_\_\_\_\_ Date \_\_\_\_\_

Investigator's signature \_\_\_\_\_ Date \_\_\_\_\_

## Appendix B

### Youth Assent Form

# Youth Assent Form

## Reasons Youth Choose or Do Not Choose to Be Involved in 4-H Livestock Projects in a Southern State

Dear 4-H Member,

Hello, my name is Leigh Fuson and I am a 4-H agent in DeKalb County. Your parents and 4-H Agent say that you are willing to help me. I am working on a project to help strengthen our 4-H program in Tennessee. All you need to do is meet with me and a few other 4-H members for about an hour to discuss your 4-H experiences. The meeting will take place at an event that you will already be attending. It will be fun to be included in this group to learn from other 4-H members and let them learn from you! I will be asking some questions about your 4-H activities and projects.

During the meeting, I will record our discussion so that I can remember exactly what everyone says. I promise not to use this recording for anything else but my project, and I won't share it with anyone other than my research team. I will need you to sign at the bottom if you are okay with me recording your answers.

Thank you for helping me with my project, and I look forward to talking with you soon!

I, \_\_\_\_\_ agree to participate in this research project.

Participant signature \_\_\_\_\_ Date \_\_\_\_\_

I, \_\_\_\_\_ give permission to be video/audio recorded.

Participant signature \_\_\_\_\_ Date \_\_\_\_\_

## Appendix C

### IRB Approval Letter



February 12, 2016

Leigh Erin Fuson,  
UTIA - EXT-DeKalb County - EXT-DeKalb County

Re: UTK IRB-16-02750-XP  
Study Title: Reasons Youth Choose or Do Not Choose To Be Involved in 4-H Livestock Projects in A Southern State

Dear Leigh Erin Fuson:

The UTK Institutional Review Board (IRB) reviewed your application for the above referenced project. It determined that your application is eligible for expedited review under 45 CFR 46.110(b)(1), categories (6) and (7). The use of children as subjects is approved under 45 CFR 46.404, in that it involves no more than minimal risk. The IRB has reviewed these materials and determined that they do comply with proper consideration for the rights and welfare of human subjects and the regulatory requirements for the protection of human subjects.

Therefore, this letter constitutes full approval by the IRB of your application (version 1.1) as submitted, including Invitation Letter Revised (version 1.0), Recruitment Letter for 4H Agents (version 1.0), Focus Group Interview Questions (version 1.0) and the consent form (Consent Form Revised version 1.0) that has been dated and stamped IRB approved. Approval of this study will be valid from 02/12/2016 to 02/11/2017.

In the event that subjects are to be recruited using solicitation materials, such as brochures, posters, web-based advertisements, etc., these materials must receive prior approval of the IRB. Any revisions in the approved application must also be submitted to and approved by the IRB prior to implementation. In addition, you are responsible for reporting any unanticipated serious adverse events or other problems involving risks to subjects or others in the manner required by the local IRB policy.

Finally, re-approval of your project is required by the IRB in accord with the conditions specified above. You may not continue the research study beyond the time or other limits specified unless you obtain prior written approval of the IRB.

Sincerely,

Colleen P. Gilrane, Ph.D.  
Chair

Institutional Review Board | Office of Research & Engagement  
1534 White Avenue Knoxville, TN 37996-1529  
865-974-7697 865-974-7400 fax irb.utk.edu

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Flagship Campus of the University of Tennessee System

## Vita

Leigh Erin (Bumbalough) Fuson was born and raised in Sparta, Tennessee. Her parents are Tim and Teresa Bumbalough, also of Sparta. She attended White County High School and graduated in 2007. Leigh then enrolled at Tennessee Tech University in Cookeville. She graduated from TTU in December of 2010 with a B.S. in Agriculture with a concentration in Agriculture Education. She pursued this degree thanks to her passion of agriculture instilled by her grandparents, dad, and the 4-H and FFA programs. While at TTU, Leigh met her future husband, also pursuing a degree in agriculture. She married Zachary Fuson of Smithville in 2011. In 2012, Leigh was hired as a 4-H agent and was able to fulfill her goals and dreams of educating youth and sharing her love of agriculture. She also has one sister, Valerie White and a brother-in-law, Will. She loves her niece, Taylor, and nephew Miles.

Leigh chose to further her education by enrolling in the online Agriculture, Leadership, Education, and Communications program at the University of Tennessee. She managed to complete her degree while working full-time, building a new house, and staying involved in the local community. She hopes her new knowledge will help her continue to be a great advocate for agriculture and educate 4-H members in DeKalb County. Leigh and Zach now live in Alexandria on their farm and raise beef cattle and hay. They hope to start a family and pass on the agricultural tradition.