BARRIERS TO VOLUNTEERING WITH THE
OKLAHOMA 4-H PROGRAM: A DELPHI STUDY

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BARRIERS TO VOLUNTEERING WITH THE
OKLAHOMA 4-H PROGRAM: A DELPHI STUDY

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Title of Study: BARRIERS TO VOLUNTEERING WITH THE OKLAHOMA 4-H PROGRAM: A DELPHI STUDY

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Abstract: The Cooperative Extension Service and 4-H program have depended on volunteers since 1914 (Van Horn et al., 1998). The success of the 4-H program depends on the investment and involvement of adult volunteers, this group continues to be the driving force of the program (Wessel & Wessel, 1982). Volunteers are an important element to the 4-H program, they often assist the Cooperative Extension Service in teaching, planning and implementing programs (Hutchins, Seevers, & Leeuwen, 2002). According to Borden et al (2014) the Cooperative Extension Service is constantly challenged to recruit, train and retain volunteers. As reduced budgets become more significant, Extension must address barriers that impact and limit volunteer certification and participation to provide support to 4-H volunteers. A one panel modified Delphi was used to determine the barriers to volunteering with the Oklahoma 4-H program. The study consisted of one panel representing Oklahoma 4-H volunteers with two to five years of service to the program. Panelists were selected based on recommendations from County 4-H Extension educators and the 4HOnline enrollment management system.
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CHAPTER I

INTRODUCTION

Oklahoma 4-H is the youth organization administered by the Oklahoma Cooperative Extension Service (OCES); one-third of the state’s land-grant mission at Oklahoma State University. The Oklahoma Cooperative Extension Service was created as a result of the passing of the Smith-Lever Act (Smith-Lever Act, 1914). The Cooperative Extension Service mission is to disseminate research-based information to the citizens of Oklahoma and is funded through federal, state and local governments (Smith-Lever Act, 1914). Oklahoma 4-H is the youth organization that provides educational programs enriched in positive youth development (National Institute of Food and Agriculture, 2019). Positive youth development serves as the model for all 4-H programs by creating positive outcomes and relationships for youth through educational experiences (National Institute of Food and Agriculture, 2019). The first 4-H club in Oklahoma was developed in 1909 in Johnston County (Stewart & Scheihing, 2010). At the time, the 4-H program primarily reflected agriculture with its corn and tomato clubs for youth (Stewart and Scheihing, 2010). Today, 4-H programs have evolved into much more, including non-formal educational experiences through programming conducted by Extension educators and certified 4-H volunteers in a variety of projects such as robotics and citizenship (Schmiesing, Soder, & Russell, 2005).
Today 4-H and its volunteers can be found in rural and urban areas with more than 500,000 volunteers serving as mentors to youth across the nation (National 4-H Council, 2018). The 4-H program is home to more than six million participants with 166,587 of those from the Oklahoma 4-H program (Oklahoma 4-H, 2017). Oklahoma 4-H has more than 8,000 certified adult volunteers that assist youth with programs and provide support to the overall mission (Oklahoma 4-H, 2016). Nationally, the 4-H program is made up of 3,500 professionals who provide educational opportunities for youth and give additional support to volunteers (National 4-H Council, 2018). In Oklahoma there are 156 county Extension Educators charged with providing similar support (R. Taylor, personal communication, April 23, 2019).

The 4-H program has continued to grow and evolve with the mission becoming more defined (Van Horn, Flanagan, & Thomson, 1998). The focus of the 4-H program is to provide educational experiences through community involvement as well as learning and applying new skills (Van Horn et al., 1998). Astroth and Haynes (2002) reported youth involved in 4-H were more likely to be leaders in their community, get good grades, serve as mentors and help others versus youth who were not involved in the program.

Delivery of 4-H programs requires the help of volunteers who assist the Cooperative Extension Service in teaching, planning and implementing programs (Hutchins, Seevers, & Leeuwen, 2002). White and Arnold (2003) found many adults chose to volunteer so they could make a difference in youths’ lives and help others; however, many 4-H volunteers leave the organization due to the time commitment and demands placed on them. Culp (1997) identified one-third of volunteers discontinue service; requiring Extension Educators to recruit and train new volunteers at a minimum of every three years. In order for 4-H to be effective in reaching youth, retention strategies need to be put into place to maintain the quality of the overall 4-H program (Culp, 1997).
Statement of the Problem

In order to maintain the quality of the Oklahoma 4-H program and as reduced budgets become more significant, the Oklahoma Cooperative Extension Service (OCES) must address barriers that effect and limit volunteer participation and certification to provide the best possible support to 4-H volunteers.

Purpose

The purpose of this study was to describe the personal and professional characteristics of a select group of Oklahoma 4-H Volunteers and identify barriers to volunteering in the Oklahoma 4-H program.

Objectives

Two objectives guided this study:

1. Identify the personal and professional characteristics of experts that serve on the 4-H volunteer panel.
2. Determine barriers that exist in volunteering with the Oklahoma 4-H program as perceived by Certified 4-H Volunteers with two to five years of experience.

Significance of the Study

The literature reflects why people choose to volunteer in the 4-H program, however, little has been reported regarding barriers and challenges to volunteering. The Cooperative Extension Service and its youth development organization, 4-H rely heavily on volunteers to deliver programs (White & Arnold, 2003). The primary way 4-H reaches its members is through club experiences (Van Horn et al., 1998). Volunteers serve as leaders in local 4-H clubs supporting and mentoring youth in their projects and interests (National 4-H, 2018).
Scope of the Study

This descriptive, exploratory study utilized a panel of certified adult 4-H volunteers. Panel members were recruited based on years of volunteer service (two to five years) to the Oklahoma 4-H program. A two-step recruitment protocol was used to identify panelists. The first step utilized county 4-H Extension educators to identify individuals. The second step utilized the volunteer data enrollment system, 4HOnline. As a result, panelists represented five different counties in the Northeast Oklahoma Cooperative Extension District.

Assumptions

This study is based on the following assumptions:

1. All panelists were certified volunteers for the Oklahoma 4-H program.
2. All panelists were familiar with the Oklahoma 4-H program and provided information they understood as appropriate and accurate to each item to which they were asked to respond.

Limitations of the Study

The following limitation was identified for this study:

1. The study was limited to those certified adult 4-H volunteers in the Oklahoma 4-H program with two to five years of experience in six counties in the Northeast Oklahoma Cooperative Extension District and may not be a full representation of all volunteers involved in the 4-H program. Therefore, findings of this study are not generalizable to all volunteers.
Definition of Terms

In this study, volunteers and volunteerism in the 4-H program are interchangeable.

The following terms were defined for use in the study:

4-H – The nation’s largest youth organization that provides non-formal research based educational experiences through hands on projects, life skill development, and positive youth development to engage and prepare youth for their fullest potential (National 4-H Council, 2018).

4-H Member or Youth – Youth ages 8 and in 3rd grade by September 1st of the current school year to 12th grade or who have not passed their 19th birthday by September 1st (Oklahoma 4-H, 2018).

Certified 4-H Volunteer – Adults who complete required trainings from Extension Educators to mentor 4-H youth, deliver programming and lead local clubs on behalf of the Cooperative Extension Service or 4-H program (National 4-H Council, 2018; Van Horn et al., 1998).

Cooperative Extension Service – Home to the 4-H program and a government agency operated through the states’ land-grant institution in cooperation with federal, state and local governments (National Institute of Food and Agriculture, 2018).

County Extension Educator – A paid professional with 4-H responsibilities employed through the states’ land-grant university that recruits, manages and utilizes volunteers as well as develops and conducts educational youth programs and is generally housed in a specific county or region responsible for covering a geographical area apart from the land-grant institution (Goering, 1980).
CHAPTER II

REVIEW OF LITERATURE

History of the Cooperative Extension Service and 4-H

The Smith-Lever Act passed in 1914 nationalized the Cooperative Extension Service system to the nation’s 100 land-grant institutions (Smith-Lever Act, 1914). The passing of the Smith-Lever Act allowed Cooperative Extension to be brought to life, where 4-H has been serving the needs of youth for over 100 years (National 4-H Council, 2018). The Cooperative Extension Service was created to provide non-formal educational experiences to people, by bringing research-based information to the public in rural and urban areas and create positive change in the lives of people (National Institute of Food and Agriculture, 2018).

The original movement of Extension began with Seaman A. Knapp, who is often credited as the father of the Cooperative Extension Service, he founded Extension on the idea of research-based programs using live demonstrations brought out to farmers (Comer, Campbell, Edwards, & Hillison, 2006). The work of Knapp allowed for the nation’s first demonstration agents (Extension educators) to be employed to assist rural farmers and producers across the country (Peters, 2002). Sometime later, demonstration agents were employed to help rural families with food and nutrition, focusing mostly on safe food preservation and canning techniques (Comer et al., 2006). Early on, the goal of Extension educators was to improve crops and animals, fight diseases and pests, advance public health and nutrition and set up 4-H clubs for rural youth (Peters, 2002).
In the beginning, the Cooperative Extension Service consisted of one Extension educator assigned to a county, responsibilities included not only agriculture and family and consumer sciences, but 4-H club work, specifically, establishment of 4-H clubs in the county (Conglose, 2000). Since 1914, the role of the Extension professional has changed to reflect program planning, program evaluation, needs assessment, recruitment and training of volunteers and marketing skills (Cooper & Graham, 2001). While the work of the Extension educator has changed, there are key components that have remained the same 100 years later (Conglose, 2000).

While Extension work did not officially begin until 1914, it was the Morrill Acts of 1862 and 1890 that established the development of land-grant institutions across the United States, the act provided states with a grant for the organization of colleges with the primary mission of teaching agricultural practices, mechanical arts and military strategies (Comer et al., 2006). It is the Morrill Act that provided the foundation for the beginnings of the Cooperative Extension Service. The Morrill Act was written and authored by Justin Smith Morrill, a representative of Vermont with the idea of adapting agricultural ideas from various agricultural based societies, the bill was introduced to Congress but was not voted on for two years (Comer et al., 2006). A second part of the Morrill Act was written and passed in 1890 to augment funding for additional land-grant colleges with the primary focus being on agriculture to educate African Americans being released out of slavery following the Civil Rights Act of 1875 (Comer et al., 2006).

The Cooperative Extension Service was not established until 1914, but the idea of 4-H club work started in the late 1800’s through the need to connect public education to people in rural America (National 4-H Council, 2018). The 4-H program was developed in response to the need for agricultural education (Borden, Perkins, & Hawkey, 2014). Through hands on learning approaches youth introduced new agricultural technologies to farm families and by 1924 4-H Clubs were established (National 4-H Council, 2018). Individuals like Albert B. Graham of Ohio
established an after-school club focusing on corn demonstration plots allowing the club members to evaluate their findings making it some of the first 4-H project work created (Borden et al., 2014). This type of project work was proven effective as youth were able to expose their parents to new corn farming techniques and these farm families were more receptive of the information from the youth than educators (Van Horn et al., 1998). Since then project work in the 4-H program has remained an important experience for youth involved in the program (Borden et al., 2014).

4-H club work has always been the foundation of the 4-H program, it exists in a variety of ways including community clubs, after school programs and in school programs (Van Horn, 1998). 4-H clubs are youth-based experiences that are usually led by an adult volunteer that provide the member the opportunity to explore interests in projects while also growing in leadership, citizenship and healthy living (Van Horn, 1998). The foundation of 4-H club work was developed based on the principle of “learn by doing” where youth gain skills through hands on participation, this concept later evolved into what is known in Extension and 4-H work as “Do, Reflect, Apply” (Wessel & Wessel, 1982). Individuals like W.D. Bentley, who was also known as the father of the Oklahoma Cooperative Extension Service delivered demonstrations via train to farmers and their families, this became known as the demonstration train which had a strong influence on youth organized club work (Roberts, 1970). As club work become more established and to provide more club experiences, youth could put their project to work through hands on experiences like contests, while also gaining skills like public speaking as well as food and nutrition skills. In the early days of the Oklahoma 4-H program, youth were required to enter one contest in either corn, cotton, bread, flowers, vegetables or sewing (Roberts, 1970). Hands on programs like these were developed and offered beginning in the 1920’s to increase participation (Wessel & Wessel, 1982).
Benefits of Participation in 4-H

Lerner and Lerner (2013) reported members are four times more likely to give back to their community, two times more likely to make healthier choices, be civically engaged and participate in science, engineering and technology programs as a result of 4-H participation. Through the 4-H experience, youth can create positive relationships with adults through youth-adult partnerships as well as build critical life skills through positive youth development experiences in the program (Guion & Rivera, 2008). In the 4-H program, Positive Youth Development is a developmental process that youth experience by being involved in programs and is considered the philosophy and approach for all 4-H programming (Lerner & Lerner, 2013). Participation in 4-H programs allow youth to experience leadership, positive relationship building and gain skills through educational opportunities while preparing them for adulthood in roles with leadership and decision making (Guion & Rivera, 2008; Van Horn et al., 1998). Members gain valuable life skills that can prepare them for the future in the workforce, as well as higher education, additional experiences can help members in a decision towards an academic major (Ferrari, Arnett, & Cochran, 2008). There are many opportunities in the 4-H program for youth to explore and volunteers are a vital part of that opportunity and experience.

There are numerous studies available that indicate the importance of the 4-H program and how it prepares youth, specifically in the area of life skills development. The 4-H program reaches six million youth and has millions of alumni all over the world, the impact of the program is evident and can be seen by youth who participate (National 4-H Council, 2018). Fox, Schroeder, and Lodl (2003), surveyed 264 alumni of the 4-H program, participants indicated having gained communication, technical, leadership, personal and social skills after having been members of the program. The impact of the 4-H program on its alumni have opened doors for alumni to serve as donors to support the next generation of 4-H youth to gain the valuable life skills and positive youth development experience (National 4-H Council, 2018).
Barriers to Volunteering in the 4-H Program

In order for youth to gain a valuable learning experience in the 4-H program, adults serving as volunteers and mentors are required (Guion & Rivera, 2008). Understanding barriers and challenges to why volunteers choose to leave the 4-H program is imperative to retaining future volunteers (Culp, 1997).

History of 4-H Volunteers in the Cooperative Extension Service

The Cooperative Extension Service and the 4-H program have depended on volunteers since 1914 (Van Horn et al., 1998). The success of the 4-H program depends on the investment and involvement of adults as volunteers; this group continues to be the driving force of the program (Wessel & Wessel, 1982). At the inception of the Oklahoma Cooperative Extension Service in 1914 there were 38 county clubs and 28 local agricultural clubs for youth to join, these clubs were established across the state by 4-H Extension educators with support and leadership from volunteers (Roberts, 1970). Support from this group of individuals was the beginning of the volunteer base in the 4-H program (Wessel & Wessel, 1982). As 4-H demographics have changed there has been a significant decline of volunteer support (Van Horn, Flanagan and Thomson, 1999).

Volunteering in the 4-H Program

Volunteers are the basis of the 4-H organization. Volunteers can be found delivering youth programs through local 4-H club meetings, camps, events, and activities (National 4-H Council, 2018). According to Van Horn et al., (1999) volunteer efforts combined with paid staff saved a county in Pennsylvania approximately $240,000. 4-H programs can be defined as non-formal educational experiences that take place outside of the formal classroom setting (Schmiesing et al., 2005). Often it is these volunteers that serve as mentors for youth and assist them with project selection and mastery (Schmiesing et al., 2005). Volunteers often give
numerous hours of their time to the 4-H program. 4-H volunteers in Oklahoma provide 220 hours of service annually to the program not including additional resources they provide to Oklahoma youth (Oklahoma 4-H, 2018). The donation of resources and time equals almost two billion dollars in services provided each year (Oklahoma 4-H, 2018).

In the formative years of the Cooperative Extension Service and 4-H program, adults were neither screened nor trained for their roles as volunteers, now adults willing to serve as a volunteer are required to go through a certification and training process (Van Horn, et al., 1998). Adults interested in volunteer service are trained by Extension educators in specific areas to provide effective program delivery, gain understanding of the 4-H program as well as appropriate interactions with youth as minors (Schmiesing et al., 2005). In order to be a volunteer in the Oklahoma 4-H program applicants must be at least 21 years old, complete an online application with references, agree to a character screening and background check and complete required training that includes agreeing to a set of behavioral guidelines (Oklahoma 4-H Volunteer Management System, 2018). Once approved as a certified volunteer, volunteers must maintain training and certification annually to include at least four continuing education credits per year as well as agreeing to periodic assessment or performance evaluation (Oklahoma 4-H Volunteer Management System, 2018). Details of training include an overview of the 4-H program including positive youth development, Working with Minors and Title VII and IX orientations (Oklahoma 4-H Volunteer Management System, 2018). This training is required to foster a positive experience for youth, maintain program standards, and ensure a safe environment for all involved (Oklahoma 4-H, 2018).

There are several roles a volunteer can serve once certified, this can include club leader, project club or group leader, or general volunteer at large (Oklahoma 4-H Volunteer Management System, 2018). These roles require a signed position agreement and a yearlong commitment to the 4-H program (Oklahoma 4-H Volunteer Management System, 2018). The position description
outlines duties and responsibilities of being a volunteer in the 4-H program (Oklahoma 4-H Volunteer Management System, 2018). Research suggests 4-H as an organization should look at realigning these positions to allow for more flexibility with busy volunteers typically serving other organizations with other demands placed on them (Culp, McKee & Nestor 2005; White & Arnold, 2003).

4-H Volunteer Demographics

Extension educators who work with and manage volunteers should be aware of volunteer demographics (Culp et al., 2005). Demographics can play a role in volunteer motivation (Wolford, Cox & Culp, 2001). Research on volunteer demographics reports the average 4-H volunteer was female, 46 years of age, had at least a high school education or a college bachelor’s degree (Culp et al., 2005). In addition, it was determined more males are needed as volunteers in the 4-H program (Culp et al, 2005). Typically, volunteers have children active in 4-H and were active as youth themselves in the program (Lobley, 2008). Additional characteristics of 4-H volunteers found by Culp et al. (2005) indicated they were actively volunteering in multiple organizations.

Historically, demographics of the average 4-H volunteer have not changed significantly. The profile of the 4-H volunteer has stayed fairly consistent over the last half century. However, one change reflects volunteers had less children and were more likely to have a job outside of the home (Culp, 1996). It should be noted that even though little has changed in terms of volunteer demographics, there has been a change in society and the environment (Culp, 1996). While the implementation and impact of programs rely heavily on the services of volunteers, understanding demographics of a volunteer base can improve the overall quality of the experience for staff, volunteers and members (White & Arnold, 2003).
Motivation to Volunteer

Volunteer demographics impact the motivation to serve as a volunteer. According to Schrock and Kelsey (2013) volunteers reflect five motives to volunteer: 1) deep need to serve others; 2) effects of parents on feelings toward volunteering; 3) the desire to follow others; 4) the experience of volunteering; and 5) the impact of volunteerism. In addition, key findings show volunteers are motivated by a need for affiliation and achievement. Fritz, Karamzin, Barbuto, and Burrow (2003) determined rural and urban volunteers had similar motives for volunteerism that included affiliation, achievement, and power needs. Schmiesing et al. (2005) found a different result while studying volunteers in a youth literacy program, specifically, volunteers were more motivated by altruistic values as their primary influences. Most volunteers enjoy working with youth in any educational program or format. Interviews conducted by Smith and Finley (2004) on natural resources project volunteers found most had an interest in working with youth, had a desire to teach and liked the organizational aspects of the 4-H program. Motivation to volunteer can increase from additional incentives like recognition from a 4-H member, a formal recognition event like a banquet, thank you note, or phone call (Culp & Schwartz, 1999). Volunteers make a strong impact on the 4-H program, the primary reason volunteers follow through is because they were asked to be involved (Seevers, Graham, Gamon & Conklin, 1997).

An extensive study by Clary, Gil, Snyder, Ridge, Copeland, Stukas, Haugen, and Miene (1998) used six functional motives for volunteering: values, understanding, social, career, protective, and enhancement. The study focused on social and psychological functions and how volunteering improved the quality of life (Clary et al., 1998). One part of particular interest was the commitment individuals have to volunteering. An investigation of benefits of volunteering found adults were more likely to continue volunteering if the benefits were relevant to their primary motivation to volunteer (Clary et al., 1998). Motivation guides the reasons people volunteer as well as what kind of volunteer experience will fulfill the incentives and intentions for
the individual to continue to stay involved beyond the initial experience (Clary et al., 1998). Rohs, Stribling, and Westerfield (2002) indicated people with different backgrounds had different personal benefits for volunteering, their data also identified a relationship between volunteer retention and the personal benefits of the individual.

Depending on the age of the individual, the motives to volunteer can be different. For instance, most retired, older adults volunteer for the social aspects versus career or power motives (Okun, Barr & Herzog, 1998). Volunteering for older adults gives them a sense of purpose while also allowing them to enjoy the flexibility of the experience (Okun et al., 1998). To maximize the volunteering experience, it is important that organizations that depend solely on volunteers to provide service ensure the position is in line with those motivations of the individual (Clary et al., 1998).

**Theoretical Framework**

An individual’s motives to volunteer can vary. Bandura (1977), identified motivation as a factor in the Social Learning Theory. Social Learning Theory is the idea people learn from each other through observation, which can motivate an individual to act (Bandura, 1977). Bandura (1977), defined motivation as the desire to mimic the same behavior. Other factors identified in the Social Learning Theory include retention and reproduction. In this theory retention relies on the ability of the individual to remember the observation in order to replicate what is being observed, therefore creating the motivation to demonstrate what was learned (Bandura, 1977).

**Volunteer Retention**

The 4-H Extension educator plays a vital role in the retention of volunteers in the 4-H program (White & Arnold, 2003). One of the major responsibilities of the educator is to be the volunteer manager, providing care, support, education, and training to ensure the success of the volunteers (White & Arnold, 2003). There is a constant need in the 4-H program to recruit, train
and retain volunteers, making this a challenge for the Cooperative Extension Service (Borden et al., 2014). It is imperative that Extension professionals have thoroughly developed volunteer management and training programs to help address this concern (Seevers et al., 1997).

The average 4-H Extension educator can expect to spend about a third of their time working with volunteers on retention, training and establishing an effective volunteer education program (Seevers et al., 1997). Models like LOOP (Locating, Orienting, Operating and Perpetuating) and ISOTURE (Identification, Selection, Orientation, Training, Utilization, Recognition, and Evaluation) can help Extension professionals on the establishment of a comprehensive volunteer program (Seevers et al., 1997). The Oklahoma 4-H program utilizes the seven phase ISOTURE model as its systematic approach to volunteer management and education (Oklahoma 4-H Volunteer Management System, 2018). Although, a great model for volunteer management, ISOTURE includes seven phases as part of its management model versus the LOOP model includes a four phase approach to managing volunteers. When comparing the ISOTURE model seven phase approach to the four phase approach of the LOOP model, ISOTURE phases are not as blended and require more steps in the management of volunteers. This study will be guided by the LOOP model of volunteer management. Volunteer management models are important in order to continue to attract, retain and train volunteers in the 4-H program and keep the program relevant and drive its success over the coming decades (Borden, et al., 2014).

Many adult volunteers chose to leave their role as a volunteer because their child is no longer a member of the 4-H program, other findings included the time demand of volunteering in the 4-H program (White & Arnold, 2003). Culp (1997) found the reason volunteers with three years or less of service left their position was due to lack of support from other volunteers and parents within the program. A study by Culp and Schwartz (1999) indicated volunteers in the 4-H program felt unneeded at times, leading the volunteer to discontinue their service with the program. White and Arnold (2003) concluded although it was not a primary reason for
discontinuing service, more attention could be devoted to enhancing the volunteers overall experience in the program making them feel more needed.

**Conceptual Theory**

Conceptually, this study is guided by the LOOP model of volunteer management. The approach of this model focuses on each concept (Locating, Orienting, Operating, and Perpetuating) being blended to ensure the overall success of the volunteer (Connors, 2012). The model was developed by Penrod (1991) to assist professionals managing volunteers oversee the needs of their organization. The LOOP model was developed by Penrod (1991) while researching volunteer work in Indiana Cooperative Extension. The locating process is rooted in matching the needs of the organization with volunteers’ individual interests and skills while also making sure the needs of the volunteer align with the organization (Connors, 2012). The orientation process of the model is more formal, but allows for informal ways of learning (Connors, 2012). Penrod’s (1991), orientation process includes explaining benefits of volunteering, policies, an overview of the organization, as well as organization goals and expectations. The operating step of the model focuses on the engagement of the volunteer and the impact to the organization, including the recognition of volunteers throughout their service versus the conclusion like other models suggest (Connors, 2012). Penrod (1991) focuses on the continuation of learning after the orientation process and the opportunity to grow. Results from Culp and Schwartz (1999), reflect volunteers preferred being recognized throughout their service rather than an awards ceremony. The perpetuating process focuses on the evaluation portion of the volunteer’s service including feedback in both formal and informal manners (Connors, 2012). The perpetuating portion of the model focuses on the actions or goals accomplished by the volunteer through evaluation of specific projects or contributions rather than the individual (Penrod, 1991).
Cooperative Extension Budget

The Cooperative Extension Service is a partnership between federal, state and county governments providing funding to support staff and programs (National 4-H Council, 2018). The Oklahoma Cooperative Extension Service (OCES) is currently experiencing a budget downfall from the state’s appropriations of funding, having went from a $41 million to $34 million to possibly a 28-million-dollar budget for the upcoming fiscal year (Doye, 2018; Trapp, 2017). OCES has, over the last seven years, taken a 27% budget reduction from the State of Oklahoma, in 2016 the Extension Service alone took a 16% cut in funding from the state (Trapp, 2017). Through all these reductions and the potential cuts in future years, OCES is left with no choice but to downsize its staff and reorganize the agency (Trapp, 2017).

The traditional staffing model for OCES is to provide each county with two Extension educators within the areas of agriculture, family and consumer sciences and 4-H youth development as well as one support staff (Trapp, 2017). Any staffing above this model is to be subsidized by county government funds (Trapp, 2017). Since 2017 OCES has been in the process of developing a reorganization and staffing plan for the future of the agency, Extension must find a way to operate within the budget it has been given by the state and look for additional revenues beyond state and county funding (Doye, 2018). Nationwide, many state Extension programs are facing the same issue and there has been a steady increase in use of grants and contracts to support programming efforts (Feldhues & Tanner, 2017). Currently, there are over 150 county Extension educators in the state (Trapp, 2017). There is a possibility that many of the positions left will be required to cover multiple counties or regions of the state (Trapp, 2017). One county Extension Educator cannot provide programming and support to Agriculture, Family and Consumer Sciences and 4-H Youth Development (Trapp, 2017). Some efforts have been made to offset costs of programming to maintain program quality and excellence. To maintain the quality
of the Oklahoma 4-H program, OCES instituted a program fee of $20 per member, but no more than $60 per family of four or more youth (Oklahoma 4-H, 2018).

The Cooperative Extension Service’s best assets are the volunteers of its programs (White & Arnold, 2003). As OCES begins to face the reality of less staff left to manage its programs, trained volunteers could potentially offer some relief to the shrinking budget and staff concerns. In this situation, it could be likely that volunteers will be asked to do more program delivery and provide leadership for 4-H club management (White & Arnold, 2003). Farris, McKinley, Ayres, Peters and Brady (2009) found only 24% of current volunteers serving on an Extension program planning board would be willing to take on new roles and increase their involvement. As limited budgets and downsizing in Extension continues to threaten program availability, the expansion, and staffing, recruitment, and retention of volunteers will become increasingly important in order to maintain existing programs (Rohs et al., 2002). As volunteers become more integrated; necessary training and an expansive recruitment effort will have to be made by Extension educators and administration. If effective volunteer recruitment is to take place, Extension professionals need information from current 4-H volunteers in Oklahoma to identify barriers that exist regarding volunteering.

Delphi Technique

The Delphi technique is a group process that helps a group or panel of individuals reach consensus on a topic or issue (Ludwig, 1997). This method has been used in Extension and Agricultural Education work to identify changes needed in the future to allow organizations time to plan and make reasonable efforts to address the issues (Ludwig, 1997). The Delphi technique has been used by the Cooperative Extension Service to assess the needs of stakeholders and clientele (Mayfield, Wingenbach, & Chalmers, 2005). The Delphi method was created by Norman Dalkey and Olaf Helmer of the Rand Corporation in the 1950’s to address the needs of
the military (Mayfield et al., 2005). This method typically consists of three rounds of questionnaires sent to a panel of selected experts to get qualitative and quantitative data to achieve understanding and agreement (Gammon, 1991).

**Summary**

Borden et al. (2014) suggest volunteer recruitment, training and retention continue to be barriers to the 4-H program. The 4-H program is the nation’s largest youth serving organization with more than 6 million youth participating (National 4-H Council, 2018). The volunteer is central to the delivery of the 4-H program and is needed to assist youth as well as provide programming on behalf of the Cooperative Extension Service (Roberts, 1970; White & Arnold, 2003). The Cooperative Extension Service and 4-H were founded on the agrarian nature of our country in the early 20th century, but have since expanded into urban audiences reaching larger populations through projects like healthy living or science, technology, engineering and math (National 4-H Council, 2018). Extension professionals should have a comprehensive volunteer education program and focus on meeting the needs of the volunteers in the 4-H program (Borden et al., 2014; Seevers et al., 1997).

Volunteers need various forms of motivation to stay engaged in the program, depending on the demographic the need can be different (Culp & Schwartz, 1999). Understanding how volunteers are motivated will help the Extension professional retain a base of volunteers for the program (White & Arnold, 2003). There are models available that with training, provide the tools needed to recruit, motivate and retain volunteers over time (Seevers et al., 1997). It has been noted that a specific demographic of the 4-H volunteer exists among the program and little has changed over the last half century (Culp, 1996; Culp et al., 2005). To work with youth Oklahoma 4-H volunteers must complete an application, character screening and necessary training and be subject to a review when needed to stay in good standing with the organization (Oklahoma 4-H
Volunteer Management System, 2018). In addition, volunteers once approved are required to maintain four continuing education credits or professional development opportunities annually (Oklahoma 4-H Volunteer Management System, 2018).

In Oklahoma, the Cooperative Extension Service like many other states over the last seven years has experienced reduced funding of its programs, in turn effecting staffing ability (Trapp, 2017). The response to the reduction in funding, specifically, the budget cut of 16% in 2016 generated the need for additional revenues to sustain programming costs resulting in a enrollment or programming fee for the Oklahoma 4-H program (Oklahoma 4-H, 2018; Trapp, 2017). Additional sources of funding are needed, and a staffing plan is currently being developed to address budget constraints (Doye, 2018; Trapp, 2017).

The Delphi method has been used successfully in Cooperative Extension Service programs to address problems or future needs of the organization (Ludwig, 1997). It has also been used widely in program development to address the needs of stakeholders and clientele that support the Cooperative Extension Service (Mayfield et al., 2005). The Delphi technique allows the researcher to address problems or issues in an organized way collecting meaningful quantitative and qualitative data (Gamon, 1991).
CHAPTER III

METHODOLOGY

This chapter details the methods and procedures adopted by the researcher to conduct the study. All methods and procedures were approved by the Oklahoma State University Review Board, including panel selection and recruitment, design of study, research instruments as well as data collection and analysis.

Institutional Review Board

In order to conduct research, approval was required of the Oklahoma State University Review Board. Approval from the Oklahoma State University Review Board was granted in July 2018 (Appendix A). In addition, two more modification applications were required and approved by the Oklahoma State University Institutional Review Board in September and August 2018 (Appendices B & C).

Research Design

The Delphi method was developed at the Rand Corporation in the 1950’s (Mayfield et al., 2005). Norman Dalkey and Olaf Helmer developed a method used in the military to gather information and seek consensus among experts in the United States Air Force (Dalkey & Helmer, 1962). The method generally features multiple questionnaires that utilize a panel of experts to reach consensus around items up for consideration. Additional techniques include the ability to
work independently, via distance (Ludwig, 1997; Mayfield et al., 2005). The Delphi method consists of a series of questionnaires to be given to each panel member that includes repeated questioning to experts to achieve the outcome of meeting agreement in order to address a problem effectively (Dalkey & Helmer, 1962; Gamon, 1991).

The method avoids direct interaction of panelists, making face to face discussion obsolete, however, researchers can employ interviews in place of questionnaires (Dalkey & Helmer, 1962). This method uses controlled interactions to provide the panelist more independent thought throughout the process of determining consensus (Dalkey & Helmer, 1962). Panelists answer multiple rounds of questionnaires, specifically the first-round experts answer one or two open ended questions to allow the researcher to identify themes among responses for questionnaires in rounds two and three (Ludwig, 1997).

**Selection of Panel**

When selecting panelists it is important to identify individuals with the appropriate knowledge, characteristics and qualifications to serve on a Delphi panel (Ludwig, 1997). The researcher should note random selection of participants without the appropriate qualifications is not recommended (Dalkey & Helmer, 1962; Ludwig, 1997). This study recruited 90 adult volunteers currently serving the Oklahoma 4-H program.

**4-H Volunteer Panel**

This study employed one panel of certified Oklahoma 4-H volunteers. Panelists were recruited from the Northeast Oklahoma Cooperative Extension 4-H District. The northeast Cooperative Extension district is located in the northeast quadrant of Oklahoma. Six counties were identified including Logan, Noble, Okfuskee, Okmulgee, Payne and Tulsa. The researcher chose to select three rural and three urban type counties that were in the same geographical area of the state and in the same Extension district to determine possible differences among different
population sizes. Potential panel members were recruited in two ways including recommendation from their respective County 4-H Extension educator and through 4HOnline, the Oklahoma 4-H program volunteer enrollment and management system. County 4-H Extension educators work closely with volunteers in the county and typically have frequent contact with volunteers in program support. The 4HOnline management systems allows the operator to run queries using specific information put in by the operator. The reports are generated and filtered by 4HOnline reflecting the specific criteria put in by the operator.

For this study, reports were generated using the following specifications: volunteers must have two to five years as a certified volunteer, have maintained annual certification and trainings, and were in good standing with Oklahoma 4-H for 2017-2018 program year. In addition, all contact information was identified from the 4HOnline management system. For this study 90 certified volunteers were invited to participate, twenty-one volunteers agreed to participate in the study, reflecting a 23 percent response rate (Appendices D & E).

**Instrumentation**

There are two types of methods that can be used with the Delphi technique, they include the Conventional and Conference methods (Linstone & Turoff, 1975). The Conventional method is considered the pencil-paper approach that involves administering a questionnaire with a sequence of questions to selected experts on a panel. The Conference method is designed to be used electronically using a computer program to distribute a questionnaire and gather panelists responses and data (Linstone & Turoff, 1975). The Conference method minimizes the delay to summarize responses allowing the researcher to develop questionnaires faster than the Conventional approach (Stitt-Gohdes & Crews, 2004).

The traditional Delphi method uses four rounds of questionnaires with round one allowing panelists the opportunity to identify information they deem as important, round two
panelists answer questions to see how the group views the issue, the third round allows the group to seek understanding of the differences to seek agreement and the fourth round gives the panel a final view of all gathered information concerning the issue (Stitt-Gohdes & Crews, 2004). This study utilized a modified Delphi technique using three rounds instead of the traditional method of using four rounds. According to Ludwig (1997) the use of three rounds is often considered acceptable to reach agreement among one panel.

To recruit individuals to serve on the panel, the researcher developed an invitation to be sent via email, with the Oklahoma State University IRB approved participant information form attached (Appendix D). Once individuals agreed to participate, they received an IRB approved email containing instructions for completing the first questionnaire that included a hyperlink to the online instrument. The questionnaires for all three rounds of the study were developed and edited in Qualtrics, an online survey software distribution program. After completion of the first round and all responses collected, the second-round questionnaire was sent to the panel seeking their level of agreement with themes identified in the first round. A final third round questionnaire was developed and sent to the panel to address statements that did not meet consensus in the previous round (2nd round).

Validity

Validity can be defined as a judgement of which an instrument appears to measure what it is designed to (Privitera, 2017). An instrument must also be satisfactory in content validity, meaning the instrument must measure the construct in the questionnaire appropriately (Privitera, 2017). The questionnaires in this study were examined for validity by experts consisting of Faculty members at Oklahoma State University within the Department of Agricultural Education, Communication, and Leadership. Each questionnaire was reviewed, and constructive feedback was given with necessary minor changes made to enhance the validity of the instruments.
Reliability

An instrument to be considered reliable must be consistent, stable, have repeatability and be free from sources of measurement error (Creswell, 2015; Privitera, 2017). Dalkey et al. (1972) found a correlation coefficient of .9 with a group size of at least 13 individuals and that as the panel size increased the reliability of the responses increased as well. In this study the researcher had 16 panelists in round one, 14 panelists in round two and 12 panelists in round three, thus reducing the reliability outlined by Dalkey et al. (1972).

Statement of Reflexivity

The researcher while conducting this study was employed through the Oklahoma Cooperative Extension Service as a County 4-H Extension educator and served as a volunteer manager, working with volunteers regularly.

Data Collection

A modified Delphi technique utilizing a series of questionnaires using one panel of experts sought to determine Oklahoma 4-H adult certified volunteers perceptions of barriers that exist in volunteering for the Oklahoma 4-H program. The researcher sent emails to panelists containing instructions for participation that included a hyperlink to access each questionnaire. Questionnaires were developed and distributed through Qualtrics to panelists. Individuals on the panel were given two weeks to complete the questionnaires during each round. Panelists were eliminated from the study who did not complete the questionnaire in round one but had previously consented to participate in the study. In addition, panelists received at least one follow-up reminder email to complete the questionnaire during each round of the study. Procedures used in each round of the study are described below.
**Round One**

Round one questionnaire (Appendix F) was sent to panelists on Tuesday, July 24, 2018 with a follow up email (Appendix D) sent as needed for panel participation. The first-round instrument consisted of personal and professional questions to identify characteristics of the panelists. Questions included sex, ethnicity/race, residence, county and age as well as alumni status, number of years as a volunteer and volunteer type/role. In addition, round one participants were asked if they had children involved in the 4-H program and the questionnaire concluded with the open-ended question: “What barriers exist in volunteering for the Oklahoma 4-H program?” As a result of round one, fourteen statements were identified. Duplicate items were removed and similar items were merged to create eight statements presented in round two.

**Round Two**

Individuals who completed the first-round questionnaire were invited to participate in round two of the study. The second instrument was generated based on responses collected from the round one questionnaire (Appendix G). The second questionnaire was sent to panelists completing round one on Friday, August 31, 2018 electronically (Round one: $N = 16$). An email reminder was sent as needed based on individual panel participation (Appendix D). The questionnaire consisted of eight items identified by panelists in round one.

Round two panelists were asked to rank their level of agreement with each barrier to volunteering for the Oklahoma 4-H program identified from the previous questionnaire. A six-point summated scale was used on the questionnaire for participants to rank responses to each item (Boyd, 2004; Kerrigan, 2007; Lockett & Boleman, 2008). Scale anchors reflected the following: $1$=Strongly Disagree, $2$=Disagree, $3$=Slightly Disagree, $4$=Slightly Agree, $5$=Agree, $6$=Strongly Agree. Comment boxes were utilized to allow participants to share additional thoughts as well as request clarification of the statements (Ludwig, 1997). Items that
received a ranking of *Slightly Agree (4), Agree (5), or Strongly Agree (6)* by at least 60% of the panelist were considered to have reached consensus and were identified as barriers to volunteering for the Oklahoma 4-H program (Boyd, 2004; Diamond, Grant, Feldman, Pencharz, Ling, Moore & Wales, 2014; Kerrigan, 2007; Lockett & Boleman, 2008). Statements that received rankings of *Slightly Agree (4), Agree (5), or Strongly Agree (6)* of the panel were included in the third-round questionnaire. Items that did not receive a ranking of *Slightly Agree (4), Agree (5) or Strongly Agree (6)* of the panel were removed from further consideration as a barrier to volunteering in the Oklahoma 4-H program and were not included in the third-round questionnaire. Fourteen panelists completed the second-round questionnaire and were included in the third-round of the study (87.5% panel response rate).

**Round Three**

Participants that completed round two of the study were invited to participate in round three via email. A round three instrument was developed based on responses from round two questionnaire. The third and final questionnaire (Appendix H) was sent to 14 panelists on September 27, 2018. A reminder email (Appendix D) was sent to the remaining panelists who had not completed the questionnaire on October 5, 2018. The final round questionnaire was developed to reach consensus on the remaining barriers that had been identified. Statements that remained from round two that did not reach consensus and were included in the round three questionnaire. Comment boxes were used to allow panelists to provide feedback or seek further clarification of items as well as a comment box at the end for any additional thoughts or concerns to barriers to volunteering for the Oklahoma 4-H program (Ludwig, 1997; Ramsey, 2009). In total, 12 participants completed the round three questionnaire concluding the study with an 85.7% response rate.
Data Analysis

Qualtrics was used to develop all questionnaires and analyze data. Personal and professional characteristics were analyzed using percentages and frequencies. Rounds two and three were analyzed based on percentage of agreement for each barrier statement. Thematic analysis was used to analyze the qualitative data to identify concepts and categories that were compiled into themes for the questionnaires (Brady, 2015). Thematic analysis has been widely used in Delphi studies with qualitative data (Brady, 2015 & Linstone & Turoff, 1975). Thematic analysis was used to develop reoccurring themes in the responses from the opened ended question in the round one questionnaire. The themes identified closely relate to the original data provided from the panelists in round one (Brady, 2015).
CHAPTER IV

FINDINGS

This chapter discusses the findings of this study and reports the personal and professional characteristics of the panel and the analysis of each round of the Delphi technique. The purpose of this study is to identify barriers of volunteering with the Oklahoma 4-H program. The study is guided by objectives to identify the personal and professional characteristics of the experts that serve on the 4-H volunteer panel as well as determine barriers that exist in volunteering with the Oklahoma 4-H program as perceived by Certified 4-H Volunteers with two to five years of experience.

Source of Data: Delphi Panelists

The findings in this chapter represent items that reached consensus from individuals serving on one panel consisting of certified adult volunteers in the Oklahoma 4-H program with two to five years of service.

Findings Related to Objective One

Objective one identified the personal professional characteristics of the individuals serving on the panel.

Characteristics of 4-H Volunteer Panel

Panelists represent six counties in the Northeast Oklahoma Cooperative Extension 4-H District. Recruitment of panelists consisted of a recommendation from a County 4-H Extension
educator and through 4HOnline, the Oklahoma 4-H volunteer enrollment and management system, which was utilized to verify years of service and to identify potential eligible participants.

Ninety certified adult 4-H Volunteers were invited to participate via email correspondence. Of the 90 potential panelists, 21 (23.33%) agreed to participate and 16 (76.19%) completed the first-round questionnaire. The remaining individuals were removed from the study as potential panelists. In terms of gender 75% were female and 25% were male (see Table 1). Fourteen (87.50%) panelists reported they were Caucasian and two (12.50%) identified American Indian or Alaskan Native as their ethnicity. The real limits of age reflected by the panelists ranged from 22-65. Specifically, two panelists (12.50%) selected 22-34 years of age, seven (43.75%) identified 35-44 years of age, four (25.00%) selected 44-54 years of age, two (12.50%) identified 55-64 and one (6.25%) panelist selected 65 years of age or older.

Table 1

Selected Personal and Professional Characteristics: 4-H Volunteer Panel

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>4</td>
<td>25.00</td>
</tr>
<tr>
<td>Female</td>
<td>12</td>
<td>75.00</td>
</tr>
<tr>
<td>Ethnicity/Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>14</td>
<td>87.50</td>
</tr>
<tr>
<td>Hispanic</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>African American</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>American Indian or Alaskan Native</td>
<td>2</td>
<td>12.50</td>
</tr>
<tr>
<td>Native</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Asian</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age Range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22-34</td>
<td>2</td>
<td>12.50</td>
</tr>
<tr>
<td>35-44</td>
<td>7</td>
<td>43.75</td>
</tr>
<tr>
<td>45-54</td>
<td>4</td>
<td>25.00</td>
</tr>
<tr>
<td>55-64</td>
<td>2</td>
<td>12.50</td>
</tr>
<tr>
<td>65 and Older</td>
<td>1</td>
<td>6.25</td>
</tr>
</tbody>
</table>
Panelists represented counties in the Northeast 4-H Cooperative Extension District. Three counties (Noble, Okfuskee, and Okmulgee) were represented by one panelist per county. Payne county reflected six panelists (37.50%) while Tulsa county had five panelists (31.25%). Unfortunately, two panelists failed to report a county of residence. Four panelists lived in a rural

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>What county do you live in?</td>
<td>1</td>
<td>6.25</td>
</tr>
<tr>
<td>Noble</td>
<td>1</td>
<td>6.25</td>
</tr>
<tr>
<td>Okfuskee</td>
<td>1</td>
<td>6.25</td>
</tr>
<tr>
<td>Okmulgee</td>
<td>6</td>
<td>37.50</td>
</tr>
<tr>
<td>Payne</td>
<td>5</td>
<td>31.25</td>
</tr>
<tr>
<td>Tulsa</td>
<td>2</td>
<td>12.50</td>
</tr>
<tr>
<td>Not provided</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Place of Residence:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Community</td>
<td>4</td>
<td>25.00</td>
</tr>
<tr>
<td>Town</td>
<td>4</td>
<td>25.00</td>
</tr>
<tr>
<td>Suburban Community</td>
<td>4</td>
<td>25.00</td>
</tr>
<tr>
<td>Farm</td>
<td>3</td>
<td>18.75</td>
</tr>
<tr>
<td>City</td>
<td>1</td>
<td>6.25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Are you a 4-H Alumnus?</th>
<th>5</th>
<th>31.25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>5</td>
<td>31.25</td>
</tr>
<tr>
<td>No</td>
<td>11</td>
<td>68.75</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What role best defines you in the 4-H Program? (Select all that apply)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Certified 4-H Volunteer</td>
<td>12</td>
<td>75.00</td>
</tr>
<tr>
<td>Certified 4-H Club Leader</td>
<td>3</td>
<td>18.75</td>
</tr>
<tr>
<td>Certified 4-H Project Group Leader</td>
<td>2</td>
<td>12.50</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>12.50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How many years have you been a certified volunteer in the 4-H Program?</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2 years</td>
<td>6</td>
<td>37.50</td>
</tr>
<tr>
<td>3 years</td>
<td>2</td>
<td>12.50</td>
</tr>
<tr>
<td>4 years</td>
<td>2</td>
<td>12.50</td>
</tr>
<tr>
<td>5 years</td>
<td>6</td>
<td>37.50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How many of your children participated in the 4-H Program?</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>7</td>
<td>43.75</td>
</tr>
<tr>
<td>3-4</td>
<td>5</td>
<td>31.25</td>
</tr>
<tr>
<td>5 or More</td>
<td>3</td>
<td>18.75</td>
</tr>
<tr>
<td>Not provided</td>
<td>1</td>
<td>6.25</td>
</tr>
</tbody>
</table>
community (25.00%), four lived in a town (25.00%), four lived in a suburban community (25.00%), three stated they lived on a farm (18.75%) and one participant lived in a city (6.25%). The researcher included a question in round one to determine if the panelists were alumnus of the 4-H program. Five participants (31.25%) indicated they were alumni of the program, while eleven stated they were not former members (68.75%) of the program. Panelists were asked what roles they reflect in the 4-H program, they were able to select all that applied to their status in the program. Twelve indicated they were certified volunteers (75.00%), three stated they serve as club leaders (18.75%) in their county, two participants served as project club leaders (12.50%) and two indicated other (12.50%) or serving in another capacity not listed in the questionnaire. Panelists serving on the panel were recommended based on having two to five years of service to the program. Six panelists have two (37.50%) years’ experience, two (12.50%) have three years of service, two (12.50%) have served for four years in the program and six (37.50%) have served for five years. The researcher was interested in how many children the panelists had in the 4-H program. Seven (43.7%) had up to two children in the program, five (31.25%) participants had 3-4 children in 4-H, three (18.75%) had five or more children in the program. One panelist did not provide any information to the question on the survey.

**Findings Related to Objective Two**

Objective two set out to determine barriers that exist in volunteering for the Oklahoma 4-H program as perceived by Certified 4-H Volunteers with two-five years of experience.

**Delphi Panel, Round One Findings: 4-H Volunteers**

The first round of this study was to determine the barriers that exist in volunteering for the Oklahoma 4-H program. Panelists answered questions about their personal and professional characteristics, but also completed an open-ended question to determine themes to identify
barriers. The open-ended question stated: “What barriers exist in volunteering for the Oklahoma 4-H Program?”

Sixteen panelists completed the round one questionnaire, statements were analyzed individually by the researcher to combine like comments and statements (See Table 2). Panelists original statements from round one can be found in table two (See Table 2). The resulting analysis identified eight themes representing barriers to volunteering for the Oklahoma 4-H program (See Table 3). The eight barriers were included in the round two questionnaire sent to panelists.

Table 2

Original Panelists Statements from Round One Open Ended Question: What barriers exist in volunteering for the Oklahoma 4-H program?

Panelists Statements from Round One Opened Ended Question

“Time, I find it difficult to devote a lot of time to volunteering while working a full time job”
“Lack of information is a problem”
“Paperwork and guidelines change often”
“Volunteers are not always given information in a timely manner”
“Time and having a full time job”
“Convenient training opportunities and literature would be nice”
“Time to do the required trainings and trainings required to be certified”
“Difficulty maintaining volunteer status and the required hours of training”
“Required trainings and extra hours spent on attending training opportunities, I don’t mind the Working with Minors session online, I wish there were more trainings online”
“Having to keep up with 4-H members and projects, but I do enjoy it”
“At times there is not clear direction on what is needed from volunteers”

“Not enough volunteers”

“There are not enough volunteers and at times I feel overworked”

Table 3

Barriers to Volunteering with the Oklahoma 4-H Program: Identified by 4-H Volunteers

<table>
<thead>
<tr>
<th>Barriers to Volunteering with the Oklahoma 4-H Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Commitment to Volunteering</td>
</tr>
<tr>
<td>Availability of Volunteer Training Opportunities</td>
</tr>
<tr>
<td>Availability of Volunteer Resources</td>
</tr>
<tr>
<td>Utilization and Roles of 4-H Volunteers</td>
</tr>
<tr>
<td>Communication from the County Extension Office to Volunteers</td>
</tr>
<tr>
<td>Volunteer Certification Process</td>
</tr>
<tr>
<td>Expectations and Requirements to Volunteer</td>
</tr>
<tr>
<td>Training of County Extension Educators</td>
</tr>
</tbody>
</table>

Panelists indicated a variety of barriers including a disorganized county 4-H program, lack of resources and direction, Extension educator training and understanding of program polices, time commitment, not having enough volunteers and maintaining status as a volunteer. One panelist stated: “Sometimes there is not clear direction on what is needed from volunteers.” Another participant went on to say: “Not enough volunteers so those few get overworked.” These statements represent the eight themes identified including; time commitment to volunteering, availability of training opportunities, availability of volunteer resources, utilization of volunteer
roles, communication from the County Extension office, volunteer certification process, expectations and requirements to volunteer, and training of County Extension educators.

**Delphi Panel, Round Two Findings: 4-H Volunteers**

The second round of the study featured a questionnaire reflecting the barriers identified in round one. In round two, 13 panelists completed the questionnaire resulting in an 81.25% response rate. The questionnaire directed participants to rank their level of agreement with the eight barriers identified in round one (See Table 4).

Table 4

*Frequencies and Percentages Presented in Round Two: 4-H Volunteers*

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Disagree %</th>
<th>Disagree %</th>
<th>Slightly Disagree %</th>
<th>Slightly Agree %</th>
<th>Agree %</th>
<th>Strongly Agree %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Commitment to Volunteering</td>
<td>0.00 0</td>
<td>0.00 0</td>
<td>23.07 3</td>
<td>38.46 5</td>
<td>38.46 5</td>
<td>0.00 0</td>
</tr>
<tr>
<td>Availability of Volunteer Training Opportunities</td>
<td>7.69 1</td>
<td>30.77 4</td>
<td>0.00 0</td>
<td>23.07 3</td>
<td>7.69 1</td>
<td>30.77 4</td>
</tr>
<tr>
<td>Availability of Volunteer Resources</td>
<td>0.00 0</td>
<td>15.38 2</td>
<td>25.00 3</td>
<td>66.67 8</td>
<td>0.00 0</td>
<td>0.00 0</td>
</tr>
<tr>
<td>Utilization and Roles of 4-H Volunteers</td>
<td>0.00 0</td>
<td>23.07 3</td>
<td>15.38 2</td>
<td>15.38 2</td>
<td>46.15 6</td>
<td>0.00 0</td>
</tr>
<tr>
<td>Communication from the County Extension Office to Volunteers</td>
<td>7.69 1</td>
<td>15.38 2</td>
<td>7.69 1</td>
<td>23.07 3</td>
<td>30.77 4</td>
<td>15.38 2</td>
</tr>
<tr>
<td>Expectations and Requirements to Volunteer</td>
<td>0.00 0</td>
<td>30.77 4</td>
<td>15.38 2</td>
<td>23.07 3</td>
<td>15.38 2</td>
<td>15.38 2</td>
</tr>
<tr>
<td>Training of County Extension Educators</td>
<td>7.69 1</td>
<td>15.38 2</td>
<td>15.38 2</td>
<td>7.69 1</td>
<td>38.46 5</td>
<td>15.38 2</td>
</tr>
<tr>
<td>Volunteer Certification Process</td>
<td>0.00 0</td>
<td>15.38 2</td>
<td>15.38 2</td>
<td>23.07 3</td>
<td>23.07 3</td>
<td>15.38 3</td>
</tr>
</tbody>
</table>
Panelists in the study ranked their level of agreement on a six-point summated scale (Boyd, 2004; Kerrigan, 2007; Lockett & Boleman, 2008). The scale reflected the following: (1)=Strongly Disagree, (2)=Disagree, (3)=Slightly Disagree, (4)=Slightly Agree, (5)=Agree, (6)=Strongly Agree. Comment boxes were utilized to collect additional thoughts as well as request clarification to the statements (Ludwig, 1997). Items receiving a ranking between 51% and less than 60% were selected to move on to round three of the study.

Table 5

*Barrier that Received More than 51% but Lower than 60% Agreement in Round Two: 4-H Volunteers*

<table>
<thead>
<tr>
<th>Barrier to Volunteering with the Oklahoma 4-H Program</th>
<th>% Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectations and Requirements to Volunteer</td>
<td>53.83%</td>
</tr>
</tbody>
</table>

Table 6

*Barriers that received at least 60% Agreement as a result of Round Two: 4-H Volunteers*

<table>
<thead>
<tr>
<th>Barrier to Volunteering with the Oklahoma 4-H Program</th>
<th>% Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Commitment to Volunteering</td>
<td>76.92%</td>
</tr>
<tr>
<td>Communication from the County Extension Office to Volunteers</td>
<td>69.22%</td>
</tr>
<tr>
<td>Availability of Volunteer Resources</td>
<td>66.67%</td>
</tr>
<tr>
<td>Availability of Volunteer Training Opportunities</td>
<td>61.53%</td>
</tr>
<tr>
<td>Utilization and Roles of 4-H Volunteers</td>
<td>61.53%</td>
</tr>
<tr>
<td>Volunteer Certification Process</td>
<td>61.53%</td>
</tr>
<tr>
<td>Training of County Extension Educators</td>
<td>61.53%</td>
</tr>
</tbody>
</table>
Round Two Summary

After the completion of round two of the study most items met consensus meeting at least 60% agreement (See Table 6). The following items met consensus: time commitment, availability of volunteer training opportunities, availability of volunteer resources, utilization and roles of 4-H volunteers, communication from the county Extension office to volunteers, volunteer certification process, and training of county Extension educators. One item did not meet consensus in round two and was included in round three (See Table 5). The item not meeting consensus was expectations and requirements to volunteer (53.83%).

Delphi Panel, Round Three Findings: 4-H Volunteers

In round three, panelists were asked to rank their level of agreement with one barrier statement to volunteering for the Oklahoma 4-H program (See Table 7). The round three questionnaire was developed and sent to 13 panelists, 12 completed the questionnaire resulting in a 92.31% response rate.

Table 7

Frequencies and Percentages Presented in Round Three: 4-H Volunteers

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Expectations and Requirements to</td>
<td>25.00</td>
<td>25.00</td>
<td>25.00</td>
<td>16.67</td>
<td>8.33</td>
<td>0.00</td>
</tr>
<tr>
<td>Volunteer</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Panelists in the study ranked their level of agreement on a six-point summated scale (Boyd, 2004; Kerrigan, 2007; Lockett & Boleman, 2008). The scale reflected the following:

\( (1)=\text{Strongly Disagree}, (2)=\text{Disagree}, (3)=\text{Slightly Disagree}, (4)=\text{Slightly Agree}, (5)=\text{Agree} \)
Comment boxes were utilized to collect additional thoughts as well as request clarification to statements (Ludwig, 1997). The final item sent in round three failed to receive scores of “4” “5” or “6” by at least 60% (See Table 7).

Table 8

<table>
<thead>
<tr>
<th>Barriers Identified by 4-H Volunteers after Three Rounds of the Delphi Study Regarding Barriers to Volunteering with the Oklahoma 4-H Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Commitment to Volunteering</td>
</tr>
<tr>
<td>Availability of Volunteer Training Opportunities</td>
</tr>
<tr>
<td>Availability of Volunteer Resources</td>
</tr>
<tr>
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<td>Volunteer Certification Process</td>
</tr>
<tr>
<td>Training of County Extension Educators</td>
</tr>
</tbody>
</table>

Summary

**Delphi Panel Summary: 4-H Volunteers**

The personal and professional characteristics of the panel reflect volunteers are mainly female (75.00%), Caucasian (87.50%) and are between 35-44 years of age (43.75%). Most panelists reside in a rural community or town and 31.25% reported they were 4-H alumni while 68.75% stated they were not alumni of the program. All panelists had a range of experience from two to five years of service to the program.
Sixteen panelists completed the first round of the study and answered an open-ended question about the barriers to volunteering with the Oklahoma 4-H program. From those responses the researcher was able to identify eight themes for round two of the study. The barrier statements were sent to 16 panelists and 13 panelists completed the questionnaire. At the completion of round two of the study most of the barrier statements reached agreement. Statements reaching 51% and less than 60% agreement were included in the third round of the study. In the third round of the study one barrier statement was included in the questionnaire. The remaining item was sent to 13 panelists and 12 panelists completed the questionnaire. At the end of all three rounds panelists identified seven barriers to volunteering with the Oklahoma 4-H program.
CHAPTER V

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

This chapter describes the conclusions and implications from the study and recommendations for future research and practice.

Conclusions Related to Objective One

Objective one sought to identify the personal and professional characteristics of the panelists that served on the panel made up of Oklahoma 4-H certified volunteers.

The panel was comprised of certified 4-H volunteers with two to five years of service to the program. The typical panelist was female, Caucasian, between 35 and 44 years of age, and not an alumna of the 4-H program. The typical panelist identified residing in a rural community, town or suburban community in Payne county. The typical panelist has been a certified volunteer for either two or five years, serving as a certified volunteer with zero to two children in 4-H.

Conclusions and Implications Related to Objective Two

Objective two set out to determine barriers that exist in volunteering with the Oklahoma 4-H program as perceived by certified 4-H volunteers with two to five years of service.

Seven barrier statements reached consensus by the Delphi panel of Oklahoma 4-H volunteers. Panelists reached consensus on the following barriers to volunteering with the Oklahoma 4-H program:
1. Time Commitment to Volunteering
2. Availability of Volunteer Training Opportunities
3. Availability of Volunteer Resources
4. Utilization and Roles of 4-H Volunteers
5. Communication from the County Extension Office to Volunteers
6. Volunteer Certification Process
7. Training of County Extension Educators

According to the panelists, these are the primary barriers that exist as perceived by the 4-H volunteer panel. Findings from this study reflect the Oklahoma Cooperative Extension Service and 4-H program must address the barriers identified in order for volunteers to be able to effectively volunteer with the organization.

**Recommendations for Future Research**

The panel of certified 4-H volunteers identified seven barriers to volunteering with Oklahoma 4-H. Future research should be conducted to examine the barriers specifically to identify solutions to the barriers. This study included Oklahoma 4-H volunteers serving as panelists with two to five years of service. The study could be modified utilizing a panel of tenured volunteers with more experience and years of service to identify potential barriers. In addition, utilizing the seven identified barriers an instrument could be developed to survey all volunteers in the Oklahoma 4-H program. Additional studies should be conducted to determine the barriers of volunteering with Oklahoma 4-H by modifying the panel in an effort to obtain other viewpoints. Such modifications could include adding an additional panel utilizing Extension professionals and expanding representation of panelists from different geographical areas of the state. An additional modification for future research and replication of the study could be to adjust the definition of consensus and percent agreement to better identify barriers (Diamond et
The researcher in this study utilized a six-point summated scale, future modification could include using a five-point summated scale to evaluate panelist ranking of individual items (Franklin & Hart, 2007).

**Recommendations for Future Practice**

Based on the results from this study and review of literature, the researcher has made the following recommendations. Findings and all information pertaining to this study should be shared with Extension professionals, 4-H volunteers and stakeholders with an interest in the organization to promote discussion to solve the barriers identified.

Time Commitment to Volunteering: Results of this study indicated a portion of volunteer time is focused on communication with 4-H families via email and social media concerning upcoming program opportunities, dates and deadlines as well as prepping for meetings and purchasing meeting supplies. In addition, there was some concern regarding the ability of volunteers to keep up with members projects while providing necessary assistance to families. Often times volunteers serve as mentors to youth in the program, while also creating youth-adult partnerships through the learning experience (Guion & Rivera, 2008). The partnership established between the volunteer and youth requires an additional time commitment of the volunteer. Extension professionals should examine realigning the time commitment to volunteering, this would allow for more flexibility as many volunteers have a variety of demands placed on them. Flexible volunteer opportunities allow for the individual to have an enjoyable, positive and meaningful experience reducing the stress from a long-term volunteer commitment (White & Arnold, 2003). Extension and 4-H professionals should look at opportunities to utilize parents or stakeholders of the program to assist volunteers as it relates to regular commitments to the program allowing for more flexibility and less demands placed on the volunteer. The utilization
of parents and stakeholders could help increase the opportunity of mentorship and youth-adult partnerships established in the 4-H experience.

Availability of Volunteer Training Opportunities: Results of the study indicated the availability of training opportunities as a barrier. Results suggested the volunteers having an interest in online 4-H volunteer trainings over project-based topics or training pertinent to educational programming that can be used for club meetings. A panelist stated, “We need more opportunities, we should have to have First Aid, CPR and event or activity trainings.” Another panelist stated, “In my county there are several opportunities for training, but volunteers might not understand what trainings they must have to continue in their role. Face-to-face trainings are of greater value but hard on time commitments.” In order for volunteers to be successful Extension professionals should have a thoroughly developed volunteer training program implemented across all county programs to meets the needs of the volunteer and the organization (Penrod, 1991). Extension educators should train volunteers on useful and current topics as it relates to the members experience in 4-H. To have a successful training and development program, volunteers need to know the importance of training. This can be reinforced in the orientation portion of the volunteer management LOOP model.

Availability of Volunteer Resources: Resources are essential for volunteers to serve the youth of Oklahoma 4-H. Results of this study identified availability of volunteer resources as a barrier to volunteering with the Oklahoma 4-H program. The study displayed panelists perceptions of the difficulty and availability of resources to volunteers. Panelists reported having limited resources for conducting club meetings, project resources as well as limited resources and venues to host programs. In addition, volunteers indicated the resources available are not in good condition, hard to find or out dated. State Extension and 4-H administration should examine the quality of resources available to meet the needs of volunteers. In addition, county Extension educators should determine resources available for local volunteers including locations to host 4-
H programs, limiting the competition for the same resources between volunteers. County Extension educators should identify accessible resources to volunteers during the orientation and operating phases of the LOOP volunteer management model.

Utilization and Roles of 4-H Volunteers: Panelists indicated there is a need for more people to fulfill roles of volunteers and more volunteers should be utilized in the planning of 4-H programs. One panelist stated, “The volunteer has the knowledge and willingness to run an event, but the educator or higher up expects it to be done by the educator, this is a volunteer organization and volunteers should be utilized more.” Results of this study reflected the typical volunteer was female, Caucasian, 35-44 years old and not an alumni of the 4-H program. Other studies have indicated the need for more volunteers, specifically male volunteers (Culp et al, 2005). Extension professionals should invest in the opportunity to utilize more male volunteers through recruitment, the needs of the program and interests of potential male volunteers through projects. In addition, 4-H Extension professionals should locate and recruit adult volunteers that were not 4-H alumni. Results of this study indicated most volunteers were not in the 4-H program as a child, but had interest in serving as a 4-H volunteer. It is important during the locating and orientating portions of the LOOP model that Extension professionals make sure volunteers understand their role and how its utilized in the 4-H program. Operationally, Extension educators should ensure volunteers are being utilized in the 4-H program appropriately and the needs of both the organization and volunteer are being met. Extension educators should utilize local grassroots organizations or other organizations with similar missions to identify potential volunteer populations.

Communication from the county Extension office to Volunteers: Panelists agreed communication was key for the program to be successful. The results of this study identified communication from the county Extension office as a barrier. A panelist stated, “Communication is often lacking, inconsistent or sometimes incorrect.” Another panelist said, “Most of the time
we initiate communication.” Oklahoma State University Extension administration should identify platforms for all Extension offices and staff to communicate with volunteers regularly. Communication plays a role in most aspects of the LOOP model making it vital that Extension educators have consistent channels of communication that allow information to be delivered in a timely manner.

Volunteer Certification Process: Results of the study indicated the volunteer certification process was time consuming and complicated. One panelist stated, “Many volunteers have no idea the steps to be a certified volunteer and when they find out, it seems so daunting, they sometimes quit.” Extension administration should examine the volunteer certification process and determine if any duplication of information or steps can be reduced or eliminated to make the entire process easier for potential volunteers to become certified. Volunteers must have a clear understanding of the certification process and the requirements. Reducing the complexity of the certification process will allow for Extension professionals to locate and orientate volunteers more effectively to meet the needs of the organization.

Training of county Extension educators: Results of this study reflected many county Extension educators lacked appropriate understanding of policies and procedures and at times did not have the latest information concerning changes or updates in program policy including the management and development of volunteers. One panelist stated, “There are many times when the volunteers know more about policy than the educators due to lack of training.” Another panelist stated, “County Extension educators don’t seem to know exactly how programs work or how events run at times.” Oklahoma Cooperative Extension Service administration should invest resources into a high-quality comprehensive training and professional development program. The training and professional development of Extension educators should be consistent across the entire organization and be a priority. The organization should invest in preparing Extension educators by providing focused volunteer management trainings to help Extension professionals
understand and execute their roles as a manager of volunteers. Utilizing and training County Extension educators on the LOOP volunteer management model will provide the necessary tools for building and maintaining a strong volunteer base.

The volunteer management model LOOP that guided this study (Locating, Orienting, Operating, and Perpetuating) provides the constructs and necessary tools for Extension professionals to be successful in establishing and maintaining a volunteer base for the Oklahoma 4-H program. County Extension educators can utilize this model to aid in their efforts of building a volunteer base locally. The findings of this study identified seven barriers to volunteering with Oklahoma 4-H. The study utilized one panel of Oklahoma 4-H volunteers to assist in the identification of the barriers. The findings of this study should be shared with Extension and 4-H professionals as well as stakeholders to promote discussion to identify potential solutions to the barriers identified.
REFERENCES


Oklahoma 4-H (2018). Retrieved from: http://4h.okstate.edu/about4-h/volunteer


Smith-Lever Act. (1914). Retrieved from:


APPENDICES
APPENDIX A

INSTITUTIONAL REVIEW BOARD APPROVAL FORM

ROUND ONE
The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

The final versions of any recruitment, consent and assent documents bearing the IRB approval stamp are available for download from IRBManager. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be approved by the IRB. Protocol modifications requiring approval may include changes to the title, PI, adviser, other research personnel, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms.
2. Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.
3. Report any unanticipated and/or adverse events to the IRB Office promptly.
4. Notify the IRB office when your research project is complete or when you are no longer affiliated with Oklahoma State University.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact the IRB Office at 223 Scott Hall (phone: 405-744-3377, irb@okstate.edu).

Sincerely,

[Signature]

Hugh Grether, Chair Institutional Review Board
APPENDIX B

INSTITUTIONAL REVIEW BOARD APPROVAL FORM

ROUND TWO
Oklahoma State University Institutional Review Board

Date: 09/30/2018
Application Number: AG-18-30
Proposal Title: Where are the volunteers: challenges and barriers in 4-H volunteer retention a Delphi study

Principal Investigator: Taylor Harbuck
Co-Investigator(s):
Faculty Adviser: Jon Ramsey
Project Coordinator:
Research Assistant(s):

Status Recommended by Reviewer(s): Approved
Approval Date: 07/23/2018
Expiration Date:

The requested modification to this IRB protocol has been approved. Please note that the original expiration date of the protocol has not changed.

Modifications Approved:
Modifications Approved: add round two

The IRB office MUST be notified when a project is complete or you are no longer affiliated with Oklahoma State University.

All approved projects are subject to monitoring by the IRB.

The final versions of any recruitment, consent and assent documents bearing the IRB approval stamp are attached. These are the versions that must be used during the study.

Sincerely,

[Signature]
Hugh Creihar, Chair
Institutional Review Board
APPENDIX C

INSTITUTIONAL REVIEW BOARD APPROVAL FORM

ROUND THREE
The requested modification to this IRB protocol has been approved. Please note that the original expiration date of the protocol has not changed.

Modifications Approved:
Modifications Approved: Add round 3 survey

The IRB office MUST be notified when a project is complete or you are no longer affiliated with Oklahoma State University.

All approved projects are subject to monitoring by the IRB.

The final versions of any recruitment, consent and assent documents bearing the IRB approval stamp are attached. These are the versions that must be used during the study.

Sincerely,

Hugh Crethar, Chair
Institutional Review Board
APPENDIX D

EMAIL SCRIPTS
First email to be sent to prospective 4-H Volunteers to serve on the panel

Subject: Oklahoma 4-H Volunteer Research Study Participation Request

Dear [Insert Name],

I am writing to request your participation to serve on a panel of experts in my upcoming research study.

My name is Taylor Harbuck and I am a 4-H Youth Development Extension educator in Noble County for the Oklahoma Cooperative Extension Service and a graduate student at Oklahoma State University. I am conducting a Delphi research study to determine 4-H volunteers’ perceived barriers to volunteering for the Oklahoma 4-H program in your respective counties. You were selected for this study because of your strong knowledge about and/or volunteer experience with the 4-H program.

Participation in this study includes completing three online questionnaires, each taking approximately 10 minutes to complete. Questionnaires will be administered throughout the duration of six to eight weeks. Please see the attached participant information sheet for more information.

This study aims to identify perceived barriers in efforts to maintain the success of the Oklahoma 4-H program and its volunteers in years to come. Your valued input in this study will provide a great benefit to the 4-H program as we seek ways to improve our program and meet the needs of our volunteers. Please respond to this email and indicate your willingness to participate in this study. If you wish to participate, you will be sent an additional email with a link to the first questionnaire.

Thank you for your consideration,

Taylor Harbuck
Email follow up if prospective participants do not respond to first email

Subject: Oklahoma 4-H Volunteer Research Study Participation Request Follow-Up

Hello,

I recently sent you an email about participating in my research study focused on identifying the barriers in volunteering in the Oklahoma 4-H program. I am seeking your decision on participation in my study. Please confirm your willingness to participate.

Thank you,

Taylor Harbuck
Email follow up if participants agree to participate, but have yet to complete instrument

Subject: Oklahoma 4-H Volunteer Research Participation Reminder

Hello,

Thank you for your participation in my research study. I noticed you have not filled out the questionnaire that was sent to you last week. Please consider responding to this important questionnaire as we look for ways to improve the volunteering experience in the 4-H program.

Thank you,

Taylor Harbuck
Second email to be sent to volunteers on panel

Subject: Oklahoma 4-H Volunteer Research Study Participation Request

Hello,

Thank you for agreeing to participate in my study regarding barriers in volunteering in the Oklahoma 4-H program. Your perceptions will provide useful insight as we seek ways to improve 4-H’s efforts as a leading youth development organization by providing best support possible to our volunteers. We greatly appreciate your input to improve the 4-H program and make the best better.

This questionnaire will take approximately 10 minutes to complete. I ask you please complete this questionnaire soon upon receiving this email, as it is only available for a short time. Click the link below to be taken to the online questionnaire.

link goes here

Please let me know if you cannot access the questionnaire or have any questions about this study. Your participation in this study is completely voluntary, and you may withdraw your participation at any time.

Thank you,

Taylor Harbuck
APPENDIX E

PARTICIPANT INFORMATION SHEET
Participant Information

Title: Where are the Volunteers: barriers in 4-H volunteer retention: A Delphi Study.

Investigator: Taylor Harbuck, Noble County Extension Educator, 4-H Youth Development-Oklahoma Cooperative Extension Service

Purpose: The purpose of this study is to determine barriers facing 4-H volunteers in the Oklahoma 4-H program.

Procedures: This study will include three short questionnaires that will be administered over the course of six to eight weeks. Participants will be asked to complete three questionnaires. The first questionnaire will ask for demographic information and your affiliation with the Oklahoma Cooperative Extension Service and Oklahoma 4-H. Additionally, you will be asked about any barriers you believe exist in volunteering for the Oklahoma 4-H program. The second and third questionnaires will include Likert-type scale response questions based on answers provided in the first questionnaire.

Risks and Benefits: There are no known risks to participate in this study. While there are no direct benefits associated with participation, the results of this study will contribute to existing knowledge exploring the barriers of volunteering in Oklahoma 4-H. By conducting this research, the Oklahoma Cooperative Extension Service and the Oklahoma 4-H program can identify perceived barriers to ensure the continued success of the program and volunteering experience for prospective volunteers.

Confidentiality: Information will be stored securely on a password-protected computer in the Noble County OSU Extension office. Only the researcher and individuals overseeing the research will have access to collected information. The records of this study will be kept private. Any written results will discuss group findings and will not include information that will identify you. Information collected will remain in strict confidentiality for up to two years until data is destroyed.

Voluntary Participation: Your participation in this study is voluntary, and you are free to skip any questions, opt-out, or stop any time without explanation throughout the duration of this study. There will be no penalty for refusal to participate in this study.

Contacts: You may contact me or any of the researchers to discuss your participation in this study or request more information regarding your rights as a research volunteer. Taylor Harbuck, 300 Courthouse Dr. #13, Perry, OK, 73077, 580-336-4621; Dr. Jon Ramsey, 465 Agricultural Hall, Stillwater, OK, 74078, 405-744-4269; Dawnette Watkins, IRB Manager, 223 Scott Hall, Stillwater, OK, 74078, 405-744-3377.

Approved: 07/23/2018
Protocol #: AG-18-36
APPENDIX F

ROUND ONE QUESTIONNAIRE
Round One Instrument- 4-H Volunteer Panel

Start of Block: Default Question Block

Q1 What is your gender?

- Male
- Female

Q2 What is your ethnicity/race?

- Caucasian
- Hispanic
- African American
- American Indian or Alaskan Native
- Asian
- Other
Q3 What is your age range?
- 22-34
- 35-44
- 45-54
- 55-64
- 65 and older

Q4 What county do you live in?

Q5 Where do you reside?
- Farm
- Rural Community
- Town
- Suburban Community
- City

Q6 Are you a 4-H Alumnus?
- Yes
- No
Q7 What role(s) best defines you in the 4-H program? Select all that apply.

- Certified 4-H Volunteer
- Certified 4-H Club Leader
- Certified 4-H Project Group Leader
- Other

Q8 How many years have you been a certified volunteer in the 4-H program?

- 2 years
- 3 years
- 4 years
- 5 years

Q9 How many of your children participate(d) in the 4-H program?

- 0-2
- 3-4
- 5 or more

Q10 What barriers exist in volunteering for the Oklahoma 4-H program? (Please elaborate on your responses)

End of Block: Default Question Block
Q8. How many of your children participate(d) in the 4-H program?

- 0-2
- 3-4
- 5 or more

Q10. What barriers exist in volunteering for the Oklahoma 4-H program? (Please elaborate on your responses)
APPENDIX G

ROUND TWO QUESTIONNAIRE
Round Two Instrument- 4-H Volunteer Panel

Directions: In Round One, panelists were asked an open-ended question pertaining to the Oklahoma 4-H Program. The question asked to identify barriers to volunteering in Oklahoma 4-H programs.

Below is a list of items identified as a result of Round One and are here in no particular order. A summated rating scale from 1-6 is available to indicate your level of agreement with each item. Please rate each item from 1-6 as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, 6 = Strongly Agree. At the end of each section, space is provided to share additional suggestions that you believe have been overlooked in Round One. Please share any thoughts you have for including or excluding another item. After you have responded to all statements, please click the submit button located at the bottom of your screen. If you have any questions regarding this study, please email me at taylor.harbuck@okstate.edu.

Thank you

The following questions represent barriers to volunteering panelists identified in Round One. Please read each statement and determine your level of agreement for each item.

<table>
<thead>
<tr>
<th>Strongly Disagree (1)</th>
<th>Disagree (2)</th>
<th>Slightly Disagree (3)</th>
<th>Slightly Agree (4)</th>
<th>Agree (5)</th>
<th>Strongly Agree (6)</th>
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<tr>
<td>Time commitment to volunteering for the Oklahoma 4-H program.</td>
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Please provide any additional comments regarding this barrier (Please elaborate your responses).

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<tr>
<th>Availability of Volunteer Training Opportunities (i.e. face to face vs. online)</th>
<th>Strongly Disagree (1)</th>
<th>Disagree (2)</th>
<th>Slightly Disagree (3)</th>
<th>Slightly Agree (4)</th>
<th>Agree (5)</th>
<th>Strongly Agree (6)</th>
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<th>Strongly Agree (6)</th>
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<tr>
<td>Availability of Volunteer Resources (i.e. club meeting resources)</td>
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<th>Strongly Agree (6)</th>
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<td>Utilization and roles of 4-H Volunteers in the Oklahoma 4-H program</td>
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Please provide any additional comments regarding this barrier (Please elaborate your responses).

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<th>Communication from the County Extension Office to Volunteers</th>
<th>Strongly Disagree (1)</th>
<th>Disagree (2)</th>
<th>Slightly Disagree (3)</th>
<th>Slightly Agree (4)</th>
<th>Agree (5)</th>
<th>Strongly Agree (6)</th>
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<td>Volunteer Certification process</td>
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<td>Expectations and requirements to volunteer</td>
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<th>Training of County Extension Educators</th>
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<th>Slightly Agree (4)</th>
<th>Agree (5)</th>
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Page 6 of 6
APPENDIX H

ROUND THREE QUESTIONNAIRE
Directions: In Round Two, panelists were asked to rank agreement to barriers pertaining to the Oklahoma 4-H Program. The statements are to identify barriers to volunteering in Oklahoma 4-H programs to determine agreement.

Below is a list of items identified as a result of Round Two and are here in no particular order. A summated rating scale from 1-6 is available to indicate your level of agreement with each item. Please rate each item from 1-6 as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, 6 = Strongly Agree. At the end of each section, space is provided to share additional suggestions that you believe have been overlooked in Round Two. Please share any thoughts you have for including or excluding another item.

After you have responded to all statements, please click the submit button located at the bottom of your screen. If you have any questions regarding this study, please email me at taylor.harbuck@okstate.edu

Thank you

Taylor Harbuck
In the final round, the following statements represent barriers that volunteering panelists identified in Round Two. Please read each statement and determine your level of agreement for each item. The final questionnaire focuses on developing consensus on those items listed below.

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<thead>
<tr>
<th>Availability of Volunteer Resources (i.e. club meeting resources)</th>
<th>Strongly Disagree (1)</th>
<th>Disagree (2)</th>
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Please provide any additional comments regarding this barrier (Please elaborate your responses).


Please provide any additional comments (Please elaborate on your responses).


VITA

Taylor Lane Harbuck

Candidate for the Degree of

Master of Science

Thesis: BARRIERS TO VOLUNTEERING WITH THE OKLAHOMA 4-H PROGRAM: A DELPHI STUDY

Major Field: Agricultural Education

Biographical:

Education:

Completed the requirements for the Master of Science in Agricultural Education at Oklahoma State University, Stillwater, Oklahoma in May, 2019.

Completed the requirements for the Bachelor of Science in Animal Science at Oklahoma State University, Stillwater, Oklahoma in 2013.

Experience:

Employed as Coordinator of Student Development for the College of Agricultural Sciences and Natural Resources at Oklahoma State University from September 2018-present.

Employed as County 4-H Youth Development Extension Educator for the Oklahoma Cooperative Extension Service in Noble County for Oklahoma State University from December 2013-September 2018.

Professional Memberships:

National Association of Colleges and Employers, 2018-Present

National Association of Extension 4-H Agents, 2013-2018

Oklahoma Association of Extension 4-H Agents, 2013-2018