SENSE OF BELONGING AS PERCEIVED BY MIDDLE AND HIGH SCHOOL STUDENTS WHO CONTINUED PARTICIPATION IN 4-H CLUBS

By

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To my wonderful wife Tracy, and our two children Chandler and Hannah. Thank you for your support on this journey.

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LIST OF ABBREVIATIONS

IFAS	Institute of Food and Agricultural Science at the University of Florida.
NIFA	National Institute of Food and Agriculture.
PSSM	Psychological Sense of School Membership, a scale developed by Goodenow (1993) to measure perceived sense of belonging in schools.
PYD	Positive Youth Development.
UF	University of Florida
USDA	United States Department of Agriculture

Abstract of Dissertation Presented to the Graduate School
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Long-term participation in 4-H should lead to positive youth development for participating young people. Even though previous research shows that participation in 4-H is a positive experience that benefits youth, many choose not to re-enroll starting in sixth grade. However, some youth do remain in the program through middle and high school. The purpose of this study was to explore why Florida middle and high school aged 4-H club members decided to remain active in 4-H. Belonging had been identified as an essential element of 4-H. In this study, middle and high school 4-H members in Florida were asked to rate their perceived sense of belonging using a Psychological Sense of School Membership scale modified for use with 4-H audiences, and also to identify factors that influenced their decision to remain in a 4-H club.

Frequencies were calculated on the seven items on the participants' decision to remain enrolled. The scores on the modified PSSM were calculated for each participant, as well as the mean score on each item of the modified PSSM instrument. The relationship between PSSM score and each of the seven factors that youth rated as factors influencing their decision to remain enrolled in 4-H was explored using a Spearman's rho Correlation.

The factor of parents/guardians influence was identified as higher than all other factors. Activities and events was the next highest scoring factor. The next highest factor was interaction with friends, then the factor participation in competitions/competitive events, and next was the factor 4-H projects. The next highest factor was interaction with a caring adult, and the factor with the lowest mean score was participation in 4-H camp.

The mean PSSM score for all participants in this study was 82.00. This indicates that participants had an extremely high sense of belonging in their 4-H club. The factor that had the strongest correlation with PSSM score was interaction with a caring adult. This study helped clarify why participants remained in 4-H and helped quantify their strong perceived sense of belonging in the organization.

CHAPTER 1
INTRODUCTION

A Brief History of National 4-H

The 4-H program is the largest youth development organization in the United States (Florida 4-H, 2018). In 4-H young people have the opportunity to develop a host of life skills such as leadership, citizenship, record keeping, and communication skills as well as subject matter expertise in over 100 project areas. As the youth development component of the Cooperative Extension Service, 4-H youth learn through hands-on educational experiences backed by the research and resources of the land grant university system (National 4-H, 2018). Today's 4-H youth programming focuses on positive youth development through building skills in the following areas: career exploration and preparation; science, engineering, technology and math (STEM); healthy living; and citizen/leadership skills. The story of 4-H begins over a century ago and played heavily on the tendency of young people to by nature be more open to change and as a group be earlier adopters of technology than their parents and other adults (National 4-H, 2013).

The Morrill Act of 1862 made it possible for each state to have a land grant university so that citizens from every class could have an applicable education in agriculture or mechanical arts while not neglecting elements of a classical education and military education. The Hatch Act of 1887 ensured that practical and meaningful agricultural research would happen in each state. In 1914 the Smith-Lever Act established the Cooperative Extension Service in each state so research and knowledge from the land grant universities could be available and meaningful for the citizens of each state. Even though these universities had practical knowledge that could improve the lives of citizens through increasing crop yields, and even though these universities

had a system in place to extend this knowledge to the general public, in some cases adoption of these new technologies remained low.

In particular researchers had a difficult time convincing farmers to grow hybrid corn. Land-grant university faculty realized young people were more open to experimenting with the new corn varieties (National 4-H, 2013). Pre-dating the Smith-Lever Act, in 1902 A.B. Graham started the Corn Growing Club and Tomato Club in Clark County, Ohio. A.B. Graham grew up on a farm near St. Paris, Ohio in Champaign County. He began teaching at age 18 and worked as a teacher and farmed. When he was 33, recognizing that his students learned better by doing activities, he started his boys and girls agriculture club with one dozen members ranging from ages 10-21. The members of his club learned care of poultry, how to properly cultivate and grow corn, and growing and canning tomatoes (Lynch, 1961).

Around the same time in Douglas County, Minnesota T.A. "Dad" Erickson, the Douglas County Superintendent of Schools, spent $20.00 on corn seed for a corn growing contest for local youth. Within five years other youth farming clubs sprang up around rural Minnesota with local fairs featuring youth corn, tomato, and potato growing contests (Erickson, 1956). When parents noticed how high yields were from their children's plots, they decided to also adopt hybrid corn seed, and mothers adopted canning techniques from their daughters. These clubs were nationalized with the passing of the Smith-Lever Act in 1914 and focused on agriculture, home economics, and related subjects.

In 1910 Jessie Field Shambaugh developed a three-leaf clover as a symbol for the new youth clubs with an H in each leaf, for the three areas the clubs sought to develop in the youth, head, heart, and hands. By 1912 a fourth "H" was added for health, the clover became a four-leaf clover and the clubs were known nationally as 4-H clubs (National 4-H, 2018).

A Brief History of Florida 4-H

In Florida the first 4-H clubs were organized by Dr. J.J. Vernon, the Dean of Agriculture at the University of Florida, in Marion, Bradford and Alachua Counties. Florida at the time was extremely rural without many developed roads, particularly in the state's interior. This difficult travel made programming a challenge, as J. Lee Smith, a former District Extension Agent, observed, "The Florida County Agent was truly an agricultural missionary, riding his circuits preaching the doctrine of a better way of agriculture and a better life. This missionary, riding a 'circuit' on horseback, on a road cart, or in a buggy, made his contacts slowly. Consequently, the corn club members for the first year, 1910, were enrolled in the fall of 1909" (Wilson & Lok, 2008, p.10). These first corn clubs, organized in 1909, mark the start of 4-H in Florida. Each club member, all white males, were given seed corn to plant. Each boy was expected to keep records on his corn and present a corn exhibit at harvest. These young men were often able to grow twice as much corn per acre as had previously grown there. This increase in corn production allowed rural Florida families to better meet their own personal needs as corn meal was an important part of the rural Florida diet at the time, improved the efficiency of their farms, and added more money for the family's harvest. By 1914, Dr. A.P. Spencer had 935 boys in Florida enrolled in these early 4-H clubs. By 1916 4-H boys were participating in raising swine, cotton, sweet potatoes, cattle, home beautification, forestry, and other agricultural projects (Wilson & Lok, 2008).

Agnes Ellen Harris became Florida's first Home Demonstration Agent and started tomato clubs for girls in 1914. She had heard about tomato clubs forming all over the United States and wanted to replicate them in Florida. Soon more than 500 young ladies enrolled in tomato clubs in Alachua, Bradford, Clay, Columbia, Escambia, Hillsborough, Holmes, Leon, Madison, Pasco, and Walton counties. After joining the club the girls received tomato seeds, planting

instructions, and a record book, and the girls were expected to plant one-tenth of an acre plot. The Home Demonstration agents visited local neighborhoods before harvest to demonstrate proper canning techniques. These tomatoes not only added food to the table in a time when fresh vegetables were not always available, but also supplemented family incomes. Sewing was added as a 4-H project by 1916. Mrs. W.S. Jennings, chairman of education for the Florida Federation of Women's Clubs, encouraged local County Commissioners to fund Home Demonstration Agents and 4-H Clubs. This cooperation between national, state, and local governments as well as private support would be a pattern for funding 4-H and other Extension programs for the next hundred plus years (Wilson & Lok, 2008).

In 1915 4-H clubs became available to African-American youth, thanks to efforts at Florida A&M University, and by 1917 about 1,250 African-American boys and girls enrolled in 4-H in Alachua, Gadsden, Jefferson, Leon, Marion, and Washington counties. Boys in these clubs grew a half-acre of corn, a quarter of an acre of peanuts, and a quarter of an acre of sweet potatoes. Girls grew one-tenth of an acre of tomatoes and canned them, along with many other farm products. By 1920 African-American 4-H Clubs were found in 18 counties and projects offered included poultry production, swine production, potato production, dairy projects, home sanitation, and savings (Wilson et al., 2008).

From 1909-1963, 4-H clubs were separate for boys and girls and segregated racially. The University of Florida administered 4-H programs for Caucasian boys, the Florida State College for Women, later known as Florida State University in Tallahassee, oversaw 4-H programs for Caucasian women, and Florida A&M University in Tallahassee administered 4-H programs for African-American children. In 1912 Caucasian girls with prize-winning tomatoes were able to take short courses at the Florida State College for Women. In 1916 the first Boy's Short Course

was held in Gainesville for Caucasian boys. In the 1920's Florida started sending two boys and two girls to the National 4-H Club Camp held on the Mall in Washington, D.C. These youth slept in tents and attended classes at the U.S. Department of Agriculture. Florida also sent delegates to the National 4-H Club Congress in Chicago, and in 1927 Florida sent twenty African-American club members to the Southern Negro Boys' and Girls' Camp at Tuskegee, Alabama. As opportunities for these young people expanded beyond simply producing an agricultural product to growing as an individual attitudes toward youth work changed and the names corn clubs and tomato clubs or pig clubs slowly all merged into the general name of "4-H Clubs" with the emphasis not necessarily only on the amount of agricultural products produced, but also developing one's head, heart, hands, and health (Wilson, et al., 2008).

Early County Agents enjoyed taking 4-H club members camping and this eventually led to the formation of 4-H Youth Camps in Florida. Camp McQuarrie opened in the Ocala National Forest in 1924. Camp Timpoochee, established in 1926 thanks to the work of J. Lee Smith and R.W. Blacklock, is still in use today and is the oldest continuous 4-H camp in the state. Camp Cherry Lake opened in 1938, and Camp Cloverleaf opened in 1950. In 1948, Camp Doe Lake opened to accommodate African-American 4-H youth. It was not until the late 1960's that 4-H camping was integrated in Florida (Wilson & Lok, 2008).

Most early 4-H clubs in Florida were administered through rural schools. By the 1960's a growing population resulted in overcrowded classrooms and longer instruction hours in each school which resulted in 4-H becoming burdensome to principals. In 1963 Woodrow W. Brown noted in the 4-H annual report that 4-H must "…leave our school homes and establish ourselves within the community life in which the members live" (Wilson & Lok, 2008, p. 22). In 1964 4-H in Florida experienced a dramatic paradigm shift as 4-H Clubs moved from schools into

local communities and clubs were led by volunteer leaders from the community with supervision from local Extension Agents. This change happened simultaneously at the state level as faculty from the Florida State College for Women combined with the University of Florida. For the first time in its history, Florida 4-H programs served boys and girls from all races under one united umbrella, as local clubs were also integrated starting in 1964. From 1964 to 1981 the number of 4-H club volunteers grew to over 4,000 adults. The first ever co-educational Florida 4-H Congress occurred in 1964, but African-American youth did not attend until 1966. Separate Boy's and Girls' State Councils also combined in 1964. Mr. Woodrow W. Brown served as state 4-H Leader for the newly united Florida 4-H program until 1972. Dr. Jim Brasher was 4-H program leader in 1972 and also chaired an academic department at the University of Florida. Throughout the 1970's several new project areas and educational opportunities were available for Florida youth, and many had little or nothing to do with agriculture. In the 1970's 4-H returned to public schools in the form of 4-H school enrichment projects such as embryology, public speaking, water conservation, and food and nutrition programs. The 4-H program expanded in urban areas of the state thanks in part to the 4-H Expanded Food and Nutrition Education Programs (Wilson, et al., 2008).

In the 1980's 4-H volunteer numbers exceeded 20,000 adults and teen leaders. Dr. Sue Fisher became 4-H program leader in 1981. In 1983 4-H Camp Ocala opened. State wide events hosted record numbers of Florida youth and new projects were added to the program throughout the decade.

Downsizing negatively affected 4-H in the 1990's as state-level faculty had to be cut due to a declining budget at the state level. In 1996 the Department of Home Economics merged with the Department of 4-H and the Department of Family, Youth, and Community Sciences

became a multi-disciplinary department within the University of Florida's Institute of Food and Agricultural Sciences. Even though state resources were shrinking, support from the counties remained strong and the number of county faculty increased through the 1990's and overall youth enrollment increased to almost 250,000 youth by 1997. Dr. Damon Miller, Sr. (formerly of Florida A&M) became the Assistant Dean of 4-H in 1998 and remained through 2001.

In 2002, Dr. Marilyn Norman became Florida's state 4-H Program Leader. In 2006, District 4-H Agents were added to the state 4-H staff to help coordinate district and state-wide youth development programming throughout Florida. In 2010, Dr. Keith Diem became Florida's 4-H program leader. In 2013-14, Dr. Brian Myers served as interim program leader, and in 2015 Dr. Michael Gutter became the Florida 4-H program leader and remains in that position currently. In 2009-10, Florida Extension conducted a series of state-wide listening sessions to determine the direction the citizens of the state expect Extension programming to proceed over the next several years. This information was collected from all over the state and was evaluated by a committee of Extension Agents and state specialists to determine the road map for 4-H programming in Florida.

The last hundred and fifty years saw the birth of the land-grant university system, creation of state agricultural research stations, and the formation of the Cooperative Extension Service. Since its earliest days, youth development proved to be an important aspect of Extension, playing on young people's tendency to more readily adopt new technologies and change. The shift from emphasizing agricultural production to emphasizing life skills development as well as subject matter expertise was the origin of today's modern 4-H youth development program.

With a history dating back over 100 years, 4-H continues to provide high-content, high-context youth development opportunities to youth in the United States and over 70 other nations. In 2017, there were 6,323,027 youth who participated in 4-H in the United States. Of these American 4-H members, 695,676 lived on farms; 2,204,671 lived in rural communities; 1,463,206 lived in towns with a population over 10,000 and under 50,000; 519,643 lived in suburbs of cities with a population over 50,000; and 1,440,241 lived in cities with a population over 50,000. These youth are engaged in hands-on opportunities that focus on life skills development and subject matter expertise in a wide variety of project areas (National 4-H, 2018).

National and Florida 4-H Today

At the national level 4-H falls under the supervision of the United States Department of Agriculture (USDA) National Institute of Food and Agriculture (NIFA) Division of 4-H and Youth. This division oversees the National 4-H Headquarters, Agriculture in the Classroom (AITC), Children, Youth, and Families at Risk (CYFAR), and the Rural Youth Development (RYD) grant program. The mission of the National 4-H Headquarters is "provide meaningful opportunities for all youth and adults to work together to create sustainable community change." with a national vision to create "a world in which youth and adults learn, grow, and work together as catalysts for positive change" (NIFA, 2018, p. 2).

Today's 4-H organization utilizes a variety of delivery modes to reach young people. Traditional community-based clubs and project clubs continue to provide a base upon which extension staff and volunteers build the overall 4-H program and usually have the largest impact on the lives of individual youth. School enrichment programs reach the largest amount of youth with short-term educational opportunities in the classroom. After-school 4-H programs allow schools to supplement their extended day programs with quality, research-based curricula for youth. Day camps and residential camping opportunities expose youth to a wide variety of topic

areas and can range from one day to one week in duration. Regardless of the delivery mode, the ultimate goal of 4-H youth development is life skills development in individual youth while not neglecting subject matter expertise.

National 4-H works cooperatively with land-grant universities and local governments to fund 4-H in local communities. Each state's land-grant university oversees the management of 4-H programs in that state. In Florida, the University of Florida, with some input from Florida A&M University, oversees an overall state program that reached 213,798 of Florida's estimated 3,147,000 youth ages 5-18 in 2017, which means Florida 4-H currently serves 6.79% of Florida youth ages 5-18 (U.S. Census, 2018). Of these, 23,999 were in organized 4-H clubs; 22,592 were in specialty clinics; 155,133 participated in a school enrichment activity; 5,827 participated in day camping programs; 3,819 youth were in 4-H Afterschool programs; 2,061 participated in residential camping programs; and 330 were independent 4-H members (Florida 4-H, 2018). Figure 1-1 presents the type of 4-H youth development participation by delivery mode in the 2016-17 4-H year.

Today there are many youth organizations around the globe. Some emphasize education, focusing on individual young people gaining skills and knowledge in a particular area. Others concentrate on prevention, targeting social norms in communities and dealing with risk factors that might influence youth. 4-H focuses on youth development, particularly on the developmental needs of youth to provide them opportunities to mature, while not neglecting education and prevention (Le Menestrel, 2008).

In 4-H, Extension faculty and volunteers utilize the experiential learning model to facilitate high-content, high-context learning opportunities for youth to develop life skills. In the experiential learning model, a young person does some activity, reflects on what she or he has

done, and applies any new skills acquired or knowledge gained from the activity to future situations, or generalizes the information for use when needed (USDA, 2013).

The idea of content in learning opportunities refers to "information and experiences created by individuals, institutions, and technology to benefit audiences in venues that they value" (Kress, 2006, p.4), according to Dr. Cathann Kress, former director of National 4-H Headquarters for the USDA. Dr. Kress (2006) refers to the context of learning opportunities as "circumstances and conditions which surround an event or individual" and "the circumstances or settings which determine, specify, or clarify the meaning of an event" (p. 4). In other words, the context refers to where one is at, who one is with, and what one is doing that makes what one learns special and important and allows youth to be a part of something bigger than themselves and to feel good because they belong somewhere and excel at something while they are there. Some learning opportunities or activities are high in content; others have a high context such as summer camp. The best youth development occurs when high-content opportunities occur in high-context situations, such as is found in 4-H clubs (Kress, 2006). Figure 1-2 illustrates the interaction between content and context in 4-H programming, with 4-H clubs having both a high context and high in content.

Life skills in relation to 4-H youth development refers to "those competencies that assist people in functioning well in the environments in which they live" (Norman & Jordan, 2006, p. 1). Each life skill a young person develops in 4-H is tied to one of the four H: Head, Heart, Hands, and Health. One might think that life skills would be associated instead with particular project areas, and it is true that some projects lend themselves to emphasizing a particular skill. However, projects are the vehicle by which young people learn and practice the emphasized life

skills. For instance, a young person can learn and practice leadership in a dog project, a woodworking project, or a photography project.

Youth development professionals who subscribe to the Positive Youth Development Theory consider young people to be community partners to be developed and assets to the community rather than problems the community has to fix (Small & Memmo, 2004). According to this paradigm, society should provide youth development programs that foster youth-adult partnerships, help young people develop competencies and assets as they mature and gain experiences. This approach is popular with youth-serving agencies like 4-H that provide nonformal or after-school programs. One framework that has been supported by empirical data is the Five Cs Model (Lerner, 2004). In this model, young people are seen as resources to be developed by society, as opposed to potentials risks or threats to society. Positive youth development, explained through the Lerner's (2004) theoretical framework, ultimately results in the 5 C's of Positive Youth Development in which young people develop Competence, Character, Connections, Confidence, and Caring. After further research, Lerner later suggested that these 5 C's of PYD leads to an ultimate sixth C, Contribution, in which youth contribute to the society in which they live.

In 4-H clubs, youth choose projects to participate in and these projects are a series of educational activities and experiences related to a topic area. In many cases these experiences are supplemented with research-based curriculum, competitive events such as judging contests or exhibitions, a record book, field trips, field days, short courses and the like. In Florida a project is defined as something related to a topic in which a young person participates in at least six hours of instruction or educational activities. In Florida there are over 100 different project areas but a young person can pursue other areas of interest as well and create his or her own unique 4-

H project with support from extension agents or volunteers. In 2010, Florida 4-H grouped most projects under three main umbrellas which are Science, Engineering, and Technology (SET), Citizenship, and Healthy Lifestyles. Projects areas under the SET umbrella include agriculture, animal science, consumer and family science, biological science, physical sciences, environmental education/earth sciences, and plant science. Projects under the Citizenship umbrella include civic engagement, community/volunteer service, leadership and personal development, and communication and expressive arts. The Healthy Lifestyles umbrella encompasses foods and nutrition projects and health and personal safety projects. In the 2016-17 4-H year, the five largest project areas in Florida were communication and expressive arts with 93,013 participants, biological sciences (including marine science and embryology projects) with 30,660 participants, environmental education/earth sciences with 20,712 participants, foods and nutrition with 17,258, agriculture in the classroom projects with 25,425 participants, and the various animal projects with 24,396 participants (Florida 4-H, 2018).

Volunteers are of the utmost importance to 4-H. Trained, caring, safe adults are the engine that drives the 4-H machine, recruiting new youth, working and mentoring youth and matching youth with the right opportunities to allow them to get the most out of their 4-H experiences (VanWinkle, Busler, Bowman, & Manoogian, 2002). Extension faculty need to recruit, screen, train and manage this valuable human resource to experience any sustained success in a county. An individual Extension agent can only work with so many youth; however, if that agent can train a volunteer force the amount of youth who can participate in the 4-H program increases exponentially. This is why 4-H professionals need some subject matter knowledge, understanding of youth development, and a good understanding of volunteer recruitment and development (VanWinkle et al., 2002). In 2017 there were 10,027 adult

volunteers who shared their time, talents, and expertise with 4-H youth in Florida (Florida 4-H, 2018).

Research Problem

At the time of this study there were 2,037,661 youth residing in Florida, and 1,490,857 youth in the age range that would qualify to participate in 4-H programs, between the ages of 5-18, residing in Florida. For the past several years Florida 4-H has served between 200,000-230,000 total youth (Florida 4-H, 2018). However, the majority of these youth are participants in short-term school enrichment programs, such as the Tropicana Public Speaking Program or the 4-H Embryology Project, which are very high content projects but are low in context. Between 17,000-25,000 youth join and participate in organized, chartered 4-H clubs in any given year. As previously mentioned, 4-H clubs provide key experiences and are considered the highest quality and level of 4-H involvement. The majority of these 4-H club members are in the elementary grades. For some reason many youth choose to leave 4-H clubs in the middle school grades. For example, in the 2016-17 4-H year, there were 43,961 youth in fourth grade, and 46,341 youth in fifth grade involved in 4-H programs in Florida, but only 29,187 youth in sixth grade in involved in Florida 4-H programs. This number drops to only 7,571 youth in seventh grade in 2016-17 participating in Florida 4-H programs (Florida 4-H, 2018). Table 1-1 shows the enrollment numbers in all 4-H programs in Florida in the 2016-17 4-H year broken down by school grade. This is a problem because research indicates that extended participation in 4-H is beneficial to youth participants (Lerner & Lerner, 2012). Understanding what causes those who remain enrolled in a 4-H club and continue participation through middle and high school could help 4-H professionals in Florida provide programming to meet the needs of older youth and help improve enrollment numbers for middle and high school aged youth.

Throughout the review of literature, the notion of belonging was a common theme as the most essential element to help young people feel comfortable in the organization, and this sense of belonging should then enable participants to be willing to remain enrolled, engage in trainings and educational activities, participate in events and competitions, and help mentor younger members. If young people feel like they belong in 4-H, they may be more likely to proceed through long term engagement in the program, which would lead to positive youth development. Measuring this perceived sense of belonging among older youth who remain in 4-H would be helpful for 4-H professionals to understand to what degree participants feel like they belong in their 4-H club.

Research Question

What factors influence why middle school aged and high school aged 4-H members choose to continue to enroll and participate in an organized 4-H club?

Purpose and Objectives

The purpose of the study was to explore why Florida middle and high school aged 4-H club members decided to remain active in a 4-H club. The specific objectives of this study were as follows:

- Describe perceptions of teenage 4-H youth regarding a sense of belonging in the 4-H program,
- Describe factors that contribute to teenage youth deciding to remain enrolled in a 4-H club,
- Analyze the association among factors that might lead to continued enrollment and indicators of belonging among teenage youth in 4-H, and
- Determine what programs, events, activities, projects, or other opportunities Florida 4-H can emphasize to attract and retain older youth.

Significance of the Study

Those teenagers who continue to participate in 4-H clubs tend to perform better in school, and youth who participate in positive youth development opportunities develop assets to prepare them for a positive future (Lerner, et al., 2014). Opportunities for youth that supplement formal education, enhance life skills development, and prepare youth for tomorrow's workforce have been assessed as priorities in Extension 4-H Youth Development programming. Studies have found that youth who participate in 4-H are less likely to engage in at-risk behaviors (such as smoking, drinking, bullying, etc.), contribute more to their family and community, and state they are more likely to attend college (Lerner et al, 2012). All these factors lead to productive, well-adjusted citizens prepared for the workforce. If 4-H administrators and professionals can determine which factors in the 4-H program appeal the most to middle and high school aged 4-H club members, they can deliberately plan programming to meet the needs of this older youth audience. This continued participation in 4-H clubs and other educational activities can help young people develop science, technology, engineering and math (STEM) literacy. Participating youth develop an interest in learning that will equip them to succeed in a rapidly changing society and global economy. Participation in 4-H programs can teach youth responsibility, and help youth develop their ability to become leaders, and may help these youth with engagement in their communities. Additionally, participation in 4-H might help participating youth develop healthy lifestyles, and encouraging youth to get outdoors to appreciate nature, agriculture, and natural resources. More older youth enrolled in 4-H will translate to a larger overall impact made by the 4-H program, which means more youth will benefit from programmatic efforts.

Definition of Terms

- 4-H – the youth development component of Cooperative Extension; often organized in local community or school clubs that youth can join to pursue knowledge and skills in project areas. The four H's stand for Head, Heart, Hands, and Health.

- 4-H Community Club - the most popular form of 4-H club in Florida; these clubs are usually coordinated by adult volunteer leaders and which meet regularly in a public or private, non-school location and in which youth participate in on one or more 4-H projects. These projects also typically have elected youth officers and participate in service learning projects.

- 4-H Day Camp - a short-term learning opportunity usually based on one project area, usually in the summer, and can last from one day to five days.

- 4-H Project - a topic or area of study for 4-H youth that includes at least six hours of educational activities.

- Belonging - the degree to which a person feels personally accepted, respected, included and supported by others. A sense of closeness and intimacy with others in a group or organization. Youth need to know they are cared about by others and feel a sense of connection with others in a group. This includes long-term consistent relationships with caring adults other than parents, as well as peers.

- BOCC - Board of County Commissioners

- Enroll - For the purposes of this study, to enroll means to complete either an on-line enrollment form in Florida 4-H online (florida.4honline.com), or a Florida 4-H paper enrollment form for the current 4-H year which runs September 1-August 31 of the following calendar year.

- IFAS - Institute of Food and Agricultural Sciences at the University of Florida. The branch of the University most tied with the tripartite land-grand mandates of teaching, research, and extension.

- Motivation - For the purposes of this study motivation refers to the reason identified by youth in a questionnaire as to why she or he chose to re-enroll in 4-H.

- NIFA - National Institute of Food and Agriculture, a division of the USDA

- School Enrichment Program - A short-term 4-H program, often conducted in schools, and often includes non-4-H club members

- SPIN Clubs – Special Interest 4-H Clubs, which focus on one project for a shorter-term club experience, typically three to six months in duration during which time youth complete one targeted project.

- STEM - Science, Engineering, Technology, and Math

- U.S.D.A. - United States Department of Agriculture

- UF - University of Florida

Limitations

This study was subject to limitations. The results, conclusions, and implications from this study were exposed to the following limitations:

- This study was limited to a convenience sample of middle- and high-school aged youth in Florida. This could limit applying results, conclusions, and implications to 4-H programs in other states.
- The instrument in this study was sent to all middle- and high-school aged youth enrolled in Florida 4-H at the time of this study. This study is limited to those youth who responded, 9% of the population of interest. Therefore, this study is vulnerable to selection bias and sampling error.
- The questionnaire were developed based on the Psychological Sense of School Membership (PSSM) scale used in formal education (Goodenow, 1993). This instrument was originally intended for use with youth in schools, not 4-H clubs. This instrument was modified for use with youth in 4-H clubs. This instrument was reviewed by a panel of experts and pilot tested with graduating seniors attending Florida 4-H University, a week-long program for Florida high school students on campus at the University of Florida each July.

Assumptions

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

- Respondents provided truthful, honest, and complete answers.
- No situation or environmental factors unduly influenced responses.
- Respondents were not biased by the researcher.
- Increased 4-H enrollment is desirable.

Chapter Summary

For over 100 years the 4-H program has provided positive youth development opportunities for young people. Over the course of that time tens of thousands of youth have participated in 4-H programs nationally. Also since the inception of 4-H emphasis has shifted through time from only emphasizing project level expertise and project proficiency to emphasizing positive youth development in participating youth. Currently in Florida there are over 200,000 youth participants in 4-H programs each year. However, only about 20,000 youth

annually are enrolled in organized 4-H clubs in Florida. Most of these youth are elementary school-aged. The majority of 4-H club members leave the program in middle school. The purpose of this study was to determine what factors influenced middle school aged and high school aged 4-H members to choose to continue to enroll and participate in 4-H clubs. Since a large number of youth leave 4-H during the middle school aged years this would help retain these youth in the program, allowing increased opportunity for the program to benefit these youth. The findings of this study could help guide future 4-H programming to better appeal to more teenage members. Increased numbers of members would mean a great opportunity for the 4-H program to positively impact participating youth for a longer period of time. In this study a questionnaire was used to evaluate what about 4-H appealed to a purposive sample of middle- and high-school aged 4-H youth within a community club. Data were then analyzed to determine what 4-H projects, events, and other opportunities should be emphasized and expanded to attract middle and high school aged 4-H club members to continue enrollment and participation.

Table 1-1. Florida 4-H participation by grade for all delivery modes, 2016-17.

Grade	Number of Youth
Kindergarten	8,387
1	11,014
2	14,256
3	21,801
4	43,961
5	46,341
6	29,187
7	7,571
8	6,656
9	3,296
10	3,391
11	2,291
12	1,287

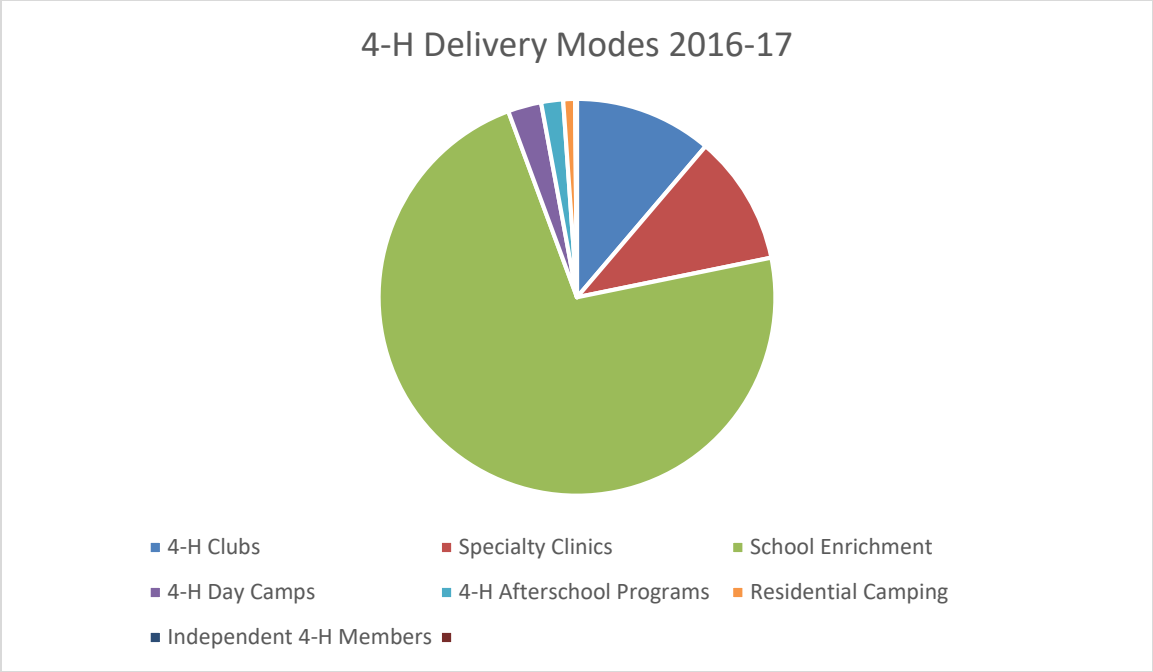

Figure 1-1. Youth participation by delivery modes in 4-H during the 2016-17 year.

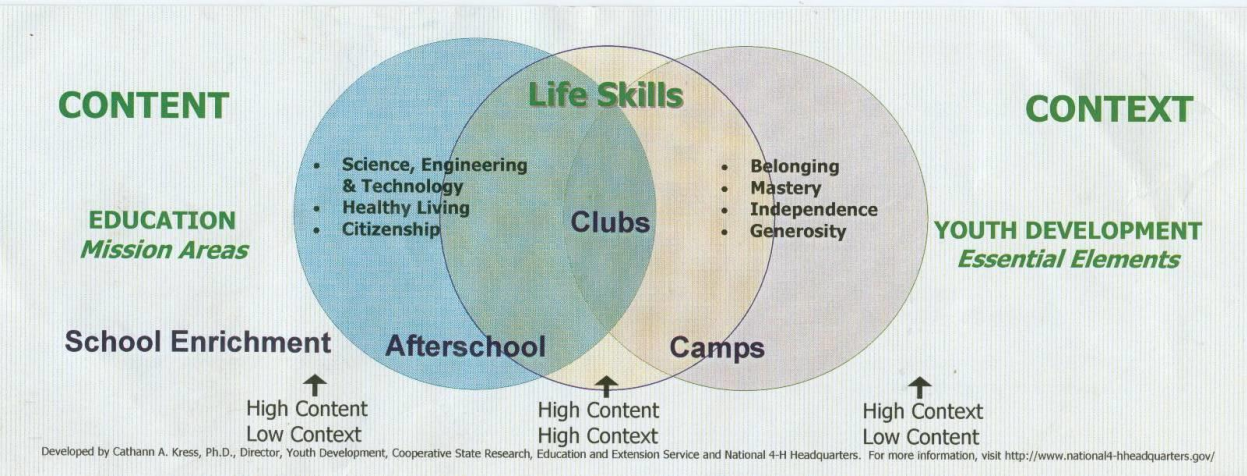

Figure 1-2. Interaction of Content and Context in 4-H Delivery Modes

CHAPTER 2
REVIEW OF LITERATURE

This chapter includes a review of literature. A review of the benefits of 4-H participation is presented. Next is a description of the essential elements of a quality 4-H program. Included is a brief review of previous studies related to retention in 4-H and other youth organizations. Youth engagement is discussed, including issues related to youth ending their 4-H involvement, as well as youth who continued their involvement. Measuring the construct of perceived sense of belonging is discussed, including the Psychological Sense of School Membership instrument to measure belonging in schools. Finally, a conceptual model of this research study is provided.

Benefits of Long-Term Participation in 4-H

Life Skills Development

Over one hundred years of history and a great deal of research have pointed to the benefits of youth participating in long-term 4-H youth development programming. Anecdotally, a plethora of examples can be cited that describe successful politicians, entertainers, and captains of industry who were 4-H alumni. The research has supported the notion that long-term participation in 4-H youth development programs benefits young people. For example, Boyd, Herring, and Briers (1992) found that Texas 4-H youth ages 13-19 developed leadership skills, and that the level of these leadership skills increased with the level of 4-H participation. Youth who participated in 4-H programs for multiple years have developed life skills such as critical thinking, problem solving, leadership, and communication skills (Targeting Life Skills Model, 2015). The Targeting Life Skills Model was developed in 1996 and has been used by 4-H youth development professionals to conceptualize the diversity of life skills young people learn through 4-H participation. Fox, Schroeder, and Lodl (2003) looked at the responses of 196 4-H alumni who had participated in 4-H for an average of 9.2 years. These alumni indicated that 4-H

influenced the development of 32 life skills, including leadership skills, technical skills, communication skills, and personal and social skills. Figure 2-1 shows the model developed at Iowa State University by Kress and others (Targeting Life Skills Model, 2015).

Positive Youth Development

Youth development professionals who have subscribed to the Positive Youth Development perspective have considered young people to be community partners to be developed (assets to the community), rather than problems the community had to fix (Small & Memmo, 2004). In the Positive Youth Development perspective, adolescents develop assets and competencies through focused, positive experiences and interactions with caring adults through youth-adult partnerships in community-based context. Youth are viewed as assets and resources in the community. As youth gain these competencies they avoid problem behaviors (Lerner, 2012). According to this paradigm, society should provide youth development programs that foster youth-adult partnerships and help young people develop competencies and assets as they mature and gain experiences, ultimately resulting in the 5 Cs of Positive Youth Development in which young people develop Competence, Character, Connections, Confidence, and Contribution (Caring or Compassion).

Lerner, Almerigi, Theokas, and Lerner (2005, pp. 1-2) wrote a:

> new, positive, and strength-based vision and vocabulary for discussing America's young people has been gaining momentum and is beginning to replace long-held beliefs of the inevitable so-called storm and stress of adolescence and the predictable engagement by youth in risky or destructive behaviors. When problems occur, they are viewed as only one instance of a theoretically larger array of outcomes that include the possibility of positive developments. From this perspective, youth are not broken, in need of psychosocial repair, or problems to be managed. Rather, all youth are seen as resources to be developed.

Lerner, Wang, Guitierrez, Harris, Rubin, and Yalin (2014) drew on a massive longitudinal study conducted by Richard M. Lerner, Jacqueline Lerner, Heidi Johnson and others

at the Institute for Applied Research in Youth Development (IARYD) at Tufts University, which the researchers tracked more than 7,000 youth from fifth grade through grade 12 from 42 states and also obtained data from more than 3,500 hundred parents. Youth sampled in this study varied by race, ethnicity, socioeconomic status (SES), family structure, whether they were in rural/urban/suburban environments, and geographic regions, as well as program participation. Lerner et al. (2014) utilized information from this Tufts study to make the case that positive youth development helps promote adolescent thriving, and specifically the long-term benefits of participation in 4-H for adolescents, including improved grades and prepares youth to contribute as adults.

Lerner et al. (2014) explored the relationship between individual development and contextual change that promoted the likelihood of youth thriving. The concept of "thriving" refers to the "growth of attributes that mark a flourishing, healthy young person" (Lerner et al., 2014, p. 18). These attributes include competence, confidence, character, connections, and caring. Lerner et al. (2014) maintained that the research from the 4-H Study of PYD seemed to indicate that when a program aligns the strengths of young people with resources that already exist in the youth development programs, as well as resources from families/schools/communities, healthy development of the young people occurs. The research also explored the link between the individual and context of youth development. In essence, Lerner et al. (2014) maintained that when the strengths of youth are aligned with resources of positive youth growth found in youth development programs, then young people's healthy development should be optimized. In other words, the individual youth exhibited the 5 Cs, as well as other positive attributes. The authors suggested a "sixth C, youth contributions to self, family, community, and civil society" (Lerner et al., 2014, p. 19). As these youth continue to

develop assets and thrive, they in turn influence their own context, and thus, the relationship between the developing individual and their own context seems to be somewhat circular. In other words, the youth work to improve the local situation, thus helping to improve their own development.

In Stephen F. Hamilton's (2014) invited commentary, the author basically critiqued and generally praised the 4-H Study of Positive Youth Development from Tufts University. This article prefaced a collection of articles in the *Journal of Youth & Adolescence* that focused on this 4-H PYD study. This commentary explained that "the articles in this special issue are part of a large and impressive body of work that continues to flow from the 4-H Study of Positive Youth Development (PYD)" (Hamilton, 2014, p. 1008). The 4-H Study of Positive Youth Development has been of particular importance to 4-H youth development professionals. Florida 4-H has touted this Tufts study for several years, and Florida 4-H agents have used this study to justify the benefits 4-H programs to local, state, and national decision makers to encourage them to support the 4-H program. Florida 4-H faculty have incorporated findings from this study into their logic models to target and plan PYD educational programs in Florida 4-H.

The articles included in this literature review that relate to PYD elicited some questions. For instance, in both articles the authors mentioned that while PYD helps develop assets such as the 5 C's in young people, some youth still chose to engage in risky behaviors. Why is this? Also, Lerner (2014) discussed the findings that differences existed between young men and young women in lower asset neighborhoods. The young women who participated in youth development programs had higher levels of PYD and were less likely to participate in risky behaviors, while the opposite was true for the young men in these neighborhoods. In higher asset neighborhoods, young men seemed to benefit more from youth development programs with

increased levels of PYD, and they demonstrated a decrease in risky behaviors, while young women in these higher asset neighborhoods who participated in youth development programs showed increased levels of risky behaviors. The authors explained how other researchers have used data from the Tufts study to describe self-regulation and suggested that more research on the concept of self-regulation might prove useful to the Positive Youth Development Theory. Since Florida is an extremely diverse state with a large youth population in both very urban areas, suburban areas, and rural areas, understanding what works best to promote Positive Youth Development in various types of communities is important to Florida 4-H faculty.

The 4-H Study of Positive Youth Development (Lerner et al., 2012) has been an important study in the field of Positive Youth Development Theory. Concepts from this study were applicable to showing how aligning the strengths of youth with existing after school development programs can lead to PYD (Lerner et al., 2014).

Benefits of Participation in Youth Development Programs

Research has demonstrated the benefits to youth who participated in extra-curricular after school activities. This has held true for urban, suburban, and rural youth. Quane and Ranking (2005) looked at the benefits of youth participating in neighborhood-based youth service organizations on minority youth from low-income families, and specifically looked at the effects of such programs on the educational expectations of the youth, academic commitment, and self-concept. The researchers in this study conducted personal interviews with African-American mothers and their children between the ages of 11-16 in both poor (383 mothers) and non-poor (163 mothers) inner city areas of Chicago with a high concentration of African-American residents. The data showed that neighborhood-level factors were moderately significant for youth participation in after-school programs that fostered positive youth development. The data also showed that availability to such programs positively influenced participation rates,

participation was “directly associated with heightened academic expectations, positive self-concept, and stronger commitment to school among youth” (Quane & Ranking, 2005, p. 1241), and “access to such resources by African-American youth may be especially important in these neighborhoods, where the need for safe and constructive free time activities are the greatest” (Quane & Ranking, 2005, p. 1242).

Hanson, Larson, and Dworkin (2003) looked at the benefits of extra-curricular positive youth development activities on 450 suburban students in a small city of 45,000 residents in central Illinois. These researchers utilized the Youth Experiences Survey, or YES, to assess the experiences of participants in their extracurricular activities. Youth who participated in extra-curricular youth development opportunities experienced personal development in a wide range of areas, including identity development, development of initiative, emotional skills, cognitive skills, physical skills, teamwork, interpersonal skills, and connection to adults. “Despite limitations, the results have value in showing that adolescents perceive themselves as having a wide array of developmental experiences in youth activities” (Hansen, Larson, & Dworkin, 2003, p. 52).

Chan and Elder (2001) found that rural youth benefited from participating in 4-H and FFA, and the youth participants tended to be more civic-minded than those rural youth who did not participate in those programs. These researchers looked at the Iowa Youth and Families Project, which investigated 451 two-parent families from rural Iowa. Interestingly, the researchers found that participation in 4-H and FFA among participants varied by farm status. Families involved in full-time farming enterprises were seven times more likely to have children participating in 4-H and FFA in comparison to families not involved in full-time farming, and families who farmed part-time were five times more likely to have children participating in 4-H

or FFA compared to non-farm families. The researchers also found that families with parents who were reared on farms, but not currently living on a farm, had a positive, but not statistically significant, effect on participation in 4-H on FFA (Chan & Elder, 2001).

Essential Elements of 4-H

A successful youth development program has essential elements, according to National 4-H Headquarters (NIFA, 2013). In 2003, Kress published an article suggesting four essential elements in 4-H drawn from Circle of Courage concept that has its roots in Native American child rearing. These essential elements were Belonging, Mastery, Generosity, and Independence. The National 4-H Impact Assessment Project, a taskforce sponsored by National 4-H, expanded these four essential elements to eight elements critical to fostering youth development in 4-H programs. These eight elements are a positive relationship with a caring adult; a physically and emotionally safe environment; the opportunity to value and practice service to others; an opportunity for self-determination; an Inclusive environment; an opportunity to see oneself as an active participant in the future; engagement in learning; and opportunity for mastery (Kress, 2003).

The four essential elements and eight critical elements have helped define a conceptual framework from which 4-H youth development professionals can facilitate Positive Youth Development in participating youth. Following is a closer investigation of the four essential elements of 4-H youth development and how the eight critical elements of a quality 4-H program relate to these four essential elements. Figure 2-2 illustrates these four essential elements and eight critical elements (Kress, 2003).

Belonging

Belonging has been considered one of the most important essential elements of a quality 4-H program. Young people feel the desire to be a part of or member of a group. These groups

could be formal groups, like classrooms or athletic teams, or informal groups similar to a community 4-H club. Three components help to create a sense of belonging in both formal and informal groups for participating youth (Wagoner, 2010). The first of these three elements is the young person having a positive relationship with a caring adult, preferentially one that is not the parent. Creating a welcoming, and inclusive environment is another key component of belonging. Wagoner also indicates the importance of creating a same emotional and physical environment for youth participants in 4-H settings.

Positive Relationship with a Caring Adult

Positive relationships youth have developed with caring adult volunteers was one of the most important aspects to promoting a sense of belonging in 4-H and one of the overall most important aspects of 4-H in general (Kress, 2003; Wagoner, 2010). These relationships have directly impacted youth, particularly if the adult was outside of the family unit. Developing a relationship with a caring adult outside of the family has helped with social development in participating youth, and has helped participating youth develop a better relationship with their parents.

The perspectives on parenting styles, as well as other views from adults other than parents, have also benefited youth in 4-H programs (Wagoner, 2010). The continued, long-term relationship with caring adults has created a mentoring relationship between 4-H volunteers and club youth, helping nurture youth as they matured. This relationship has also served as a supportive, nurturing relationship for participating youth that has aided in positive youth development. The club leader has helped establish safe boundaries, as well as expectations for participating youth, as they both coach and advocate for youth members in their 4-H clubs. This has helped lead youth in 4-H clubs to feel respected and has aided in fostering an environment in which participating youth felt comfortable interacting with other 4-H club members. Adults

have included youth participants in decision-making and in the running of the business of the 4-H club. These youth-adult partnerships fostered a sense of ownership for 4-H club participants. Studies have also shown that when adults are able to convey to 4-H youth that they truly care, this has empowered youth to try new experiences, attempt more complex tasks, and set loftier goals (Wagoner, 2010). Caring adults have provided feedback to youth through coaching, feedback, and discussion utilizing experiential learning opportunities (Wagoner, 2010).

An Inclusive Environment

Quality 4-H programs also provide an inclusive environment for all youth participants (Wagoner, 2010). The notion of an inclusive environment refers to the idea that young people felt valued, accepted, and connected to the overall group. Acceptance leads to youth being more likely to contribute to club activities and also helps youth develop healthy peer relationships with other youth in the club. This helps develop a healthy self-image and helps youth feel safe to utilize their personality and talents as they contribute to club and community activities. An inclusive environment also provides youth with healthy feedback during experiences as well as aided in improving future results. Feedback throughout projects and activities helps youth feel safe in trying new experiences (Wagoner, 2010).

A Safe Emotional and Physical Environment

In 4-H clubs, ensuring that participating youth felt both physically and psychologically safe was imperative to fostering belonging. Research has shown this need for safety to be crucial for fostering positive youth development (Wagoner, 2010). Wagoner also found that participating youth in 4-H need to feel safe from physical harm to create an effective learning environment. This allows youth to feel free to openly participate and communicate in club activities. Safety features, such as life guards at 4-H camps, sign-in and sign-out sheets at club activities, medical releases, and adult volunteer screenings, create safe environments for youth

participants in 4-H clubs. This notion of safe environments in 4-H clubs has also included freedom from bullying, insults, threats, or any form of emotional danger (Wagoner, 2010).

Independence

The essential element Independence refers to the notion that young people can envision themselves as an active participant in the future and be able to determine their own future (Kress, 2003).

Seeing Oneself as an Active Participant in the Future

The literature has suggested that when young people envision themselves in the future, they have hope and optimism in making positive life choices that lead to actively engaging future choices (Kress, 2003; McGlaughlin, 2010). In quality 4-H programs, young people learn to set attainable goals and define strategies to reach those goals. When youth achieve their goals, they have confidence and aspire to more difficult or complex, challenging goals (McGlaughlin, 2010).

4-H professionals and volunteers have assisted youth to help them achieve a sense of independence by providing opportunities to assess successes and failures in 4-H club work. These adults have also encouraged youth to explore new hobbies that they enjoyed. Adults have also sought to expose 4-H members to career opportunities related to club projects, including the skills and education needed to pursue those careers. Adults have encouraged youth participants to try new and more complex projects and activities as they mature. These 4-H professionals and volunteers have also helped encourage older youth to set career goals (McGlaughlin, 2010).

Self Determination

This notion of self-determination has two components (McGlaughlin, 2010). The first is the notion that young people feel they have the ability to influence life events in their own lives and have some control over their lives and future. As the participating youth mature, they sense a shift from parents and other adults controlling their lives to noticing that their own decisions

influence their lives. In quality 4-H programs, the 4-H professionals and volunteers assist youth in fostering a sense of influence and control over their own lives and futures. This allows youth to mature into autonomous adults. The adults allow the youth to express their voice through asking questions and discussing their experiences. Older members in successful clubs are asked to mentor younger members and even organize some activities for younger members. These older youth are invited into the club decision making process and are encouraged by adults to seek leadership roles at the club, county, district, and state levels (McGlaughlin, 2010).

Generosity

In quality 4-H experiences, young people feel comfortable contributing their talents, skills, and hard work to improving local communities, their country, and their world (Kress, 2003). Through continued participation in 4-H clubs and related events and activities which include service learning projects, young people learn empathy for others as well as the importance of service to others. In fact, in 4-H, young people pledge their hands to larger service for their club, community, country, and world.

An Opportunity to Value and Practice Service to Others

"Finding ones' self begins with losing one's self in the service to others" (Seibold, 2010, p. 1). Service learning opportunities and service projects allow 4-H members to become exposed to larger circles outside club and family. The premise of generosity, in relation to the essential elements of a quality 4-H program, is for participating youth to learn to value and practice service to other people. By serving others, youth contribute their skills, thoughts, and time to those who could use help. These youth also learn that their generosity and help is accepted, acknowledged, and appreciated (Seibold, 2010).

Adults who instill generosity in youth often find ways to incorporate service learning into project experiences. Some organized clubs have programs focused primarily on service. These adults also make sure that youth service is recognized and appreciated (Seibold, 2010).

Mastery

Mastery is the fourth essential element of a quality 4-H program (Kress, 2003). "Mastery is described as building knowledge, skills, and attitudes and then providing opportunities for youth to demonstrate the competent use of the new knowledge or skills" (Leman, 2010, p.1). The notion of mastery focuses on the hands-on, experiential elements of 4-H youth development (Kress, 2003).

Opportunities for Mastery

The idea of subject matter expertise, such as becoming an expert over time at sewing, cooking, or gardening, is core to the notion of mastery. As youth mature and complete subsequent years of the same project, they have the opportunity to develop mastery in that project area. Often these mastered projects lead to career choices (Leman, 2010).

Mastery also encompasses the notion that youth feel capable and confident in their abilities to complete tasks or handle adversity, which is referred to as self-efficacy. Eventually, youth who master a topic evolve beyond seeking to compete with peers to competing with themselves to become better in a particular project area, seeking to become proficient in that project (Leman, 2010).

Engagement in Learning

Young people who are engaged in active learning remain interested in a specific project area over a long period of time, often several years. These youth who remain engaged in learning in a particular project area seek relationships with others to expand their knowledge and experience base related to the project (Leman, 2010). These youth have a spark of interest in

their project area and an air of excitement related to the project, sparked by the learning experience. Utilizing the experiential learning model (Norman & Jordan, 2006), youth actively participate in experiences related to the project and then reflect on those experiences, discuss those experiences, and learn to apply those experiences to future situations (Leman, 2010).

Previous Research

The following is a summary of research that has shown the long-term benefits to youth who participated in 4-H programs. Researchers and 4-H professionals such as Kress (2003), Norman and Jordan (2006), Leman (2010), McLaughlin (2010), Seibold (2010), and Wagoner (2010) have described the essential elements of a successful 4-H program. However, for many years a large number of eligible youth have failed to re-enroll in the 4-H program. Since research has consistently shown the benefits to youth and society from youth participation in 4-H programs, understanding why youth have left the program was an important question. A large number of researchers have investigated why youth leave the 4-H program.

4-H Enrollment as the Diffusion of an Innovation

Chilek's (2012) study of Texas youth looked at re-enrollment through Rogers' Adoption-Diffusion process and identified reasons that youth discontinued 4-H participation. This process, which investigated the diffusion and adoption of innovations, included the concepts of knowledge, persuasion, decision, implementation, and confirmation. Chilek surprisingly found that 51.9% of youth who did not re-enroll, according to the online data base utilized in Texas 4-H enrollment, still thought they were enrolled in 4-H and still identified themselves as 4-H members. For those who had actually left the program there was no one clear trigger that caused the majority to leave. Chilek concluded:

> There is no one answer for why youth discontinue participation in 4-H. The answer is cumulative, sporadic, and involves a deeper understanding of the priorities youth put on different portions of the 4-H program and their support

> structure. Age continues to be the one factor that predicts whether youth will discontinue membership. As youth age they tend to narrow their focus and, as a result, they discontinue participation in some programs. There is also a point in time at which youth tend to discontinue, and for 4-H historically, it has been the transition to high school. We cannot yet go to our current 4-H membership and expect to get complete answers on why youth discontinue (Chilek, 2012, p. 74).

Competitive Events in 4-H Influence Participation

The notion that an emphasis on competitive events influences 4-H participation (both positively and negatively) has been a common theme in the literature. Some researchers have pointed to the benefits of competition in motivating youth participation such as Keith (1997), who found that Texas parents cited the opportunity to compete as a major motivator to youth joining 4-H, and this competition helped the participating youth develop life skills. Radharkrishna, Everhart, and Sinasky (2006) found in a study of 182 4-H participants at 4-H State Achievement Days at Penn State University, that 180 participants indicated that competition was an incentive for them to join 4-H, and 182 indicated that competition in 4-H was beneficial to their positive development. Other studies have implied that emphasis on competitive events in 4-H has discouraged participation amongst youth not motivated by achievement. Forbes (1988) found that emphasis on competition and awards may have caused Oklahoma youth who are not extrinsically motivated to leave 4-H.

The Influence of Demographics on 4-H Participation

Demographics of participating youth and families also have played a role in their continued participation in 4-H. In particular the age of youth has been a common theme in who participated in 4-H programs. Whaley (2011) sought to predict 4-H club member persistence in the Iowa 4-H program based on demographic data. This study, which focused primarily on the persistence of intermediate-age youth (those youth who were middle school age), found that

grade in school, number of years in 4-H, and place of residence were significant independent variables for predicting continued membership in the Iowa 4-H program (Whaley, 2011).

Harder, Lamm, Lamm, Rose, and Rask (2005) looked an enrollment data in Colorado to understand retention and drop-out rates of youth based on age. The researchers found that as youth grew older they were more likely to leave the 4-H program. The researchers observed that a "steady decline in the member population begins at age 12 and continues on through age 18. This decline supports the perceptions by 4-H agents that senior members are difficult to retain in the program" (Harder et al., 2005, p. 3). The researchers suggested that the 4-H program was struggling to meet the needs of teen members.

Hartley (2005) used enrollment information from 2002, 2003, and 2004 to investigate 4-H youth enrollment in West Virginia. In this study the researcher sought to identify trends or factors that influenced retention of 4-H members. This study showed the largest number of members in the study were in their first year of 4-H, and the second largest group was in the second year of 4-H. The largest drop-out rate occurred between year one and year two of the program. The mean age of all retained 4-H members was 12.5 years old. Also from this study, the age group that maintained the most members from the previous year in West Virginia was age 10. In this study the project areas with the highest retention rate were animal science projects (Hartley, 2005).

Hamilton, Northern, and Neff (2014) conducted a similar study in New York and used enrollment data from that state from 2009 and 2012. These researchers found that 4-H enrollment peaked in New York during fifth grade. They also found that the highest dropout rate occurred after the first year of participation, particularly for new high-school aged members.

In the literature, the age of youth consistently seemed to be a good predictor of the retention/drop-out rate of youth; as young people age, they are more likely to leave the program.

Some Older Youth Stay in the 4-H Program

Not all older youth leave the 4-H program. Understanding why these youth chose to stay in the program could help expand intentional programming and opportunities to meet the needs of more middle- and high-school aged youth. While research into why young people chose to stay in 4-H has been conducted, the body of research on why youth remain in 4-H was much smaller than the amount of studies that focused on why youth left 4-H.

Ferrari and Turner (2006) used personal interviews to investigated why youth at a predominantly minority after-school 4-H program participated in the program. The researchers noticed themes that emerged from these interviews as to why youth enjoyed remaining in the 4-H afterschool program. These themes the researchers documented were interaction with a caring adult, homework assistance, the safe environment, opportunities in the program, having fun, making friends, learning, character development, and developing life skills (Ferrari & Turner, 2006).

Hartley (2005) suggested that 4-H members positively respond to 4-H agents and leaders who are enthusiastic about 4-H. Parental involvement also seemed to positively influence continued 4-H club participation. Also, youth who completed at least one 4-H project had a higher re-enrollment rate than those youth who did not complete at least one project (Hartley, 2005).

Hobbs (1999) conducted interviews with eight family service consultants in three rural Oregon counties to investigate the benefits of community-based youth programming for at-risk youth, how at-risk youth become engaged in community-based youth programs, and barriers to participation. The family service consultants all touted the benefits for at-risk youth who

participate in community-based youth development organizations. The family service consultants also explained the process they utilized to connect youth with potential organizations. The process could be of interest to 4-H professionals seeking to work with similar types of youth audiences. First, the family service consultants contacted potential youth-serving organizations about opportunities for youth participants. Next the consultants communicated with people in the organizations to ensure they could accommodate the special needs the youth might have had. Finally, the consultants matched youth with organizations, following up with parents to ensure youth were enrolled. The family service consultants identified barriers to at-risk youth participating in community based youth organizations. One issue was the difficulty in finding youth development organizations, since no central list of such organizations existed. Cost was also listed as a barrier to at-risk youth from participation in community-based youth development programs. Transportation was also a barrier to youth participation. Lack of follow through was identified as another barrier that kept at-risk youth from participating (Hobbs, 1999).

Hobbs (1999) used findings from this study to make recommendations to 4-H professionals to better recruit and serve at-risk youth. "At the program level, 4-H agents should attempt to communicate regularly with school counselors and social workers as well as youth-serving agencies to be sure professional staff are aware of the opportunities available through the 4-H program" (Hobbs, 1999, p. 4). He suggested that 4-H professionals participate in in-service trainings for teachers or other professional training days for other youth-serving organizations. 4-H professionals should also try to work hand-in-hand with case managers of high-risk youth. Hobbs also recommended that 4-H professionals utilize their prominence in local communities to build support for local at-risk youth (Hobbs, 1999).

Acosta and Holt (1991) looked at how 4-H programs were meeting the felt needs of youth participants in a rural parish in Louisiana. Local 4-H members in seventh through twelfth grades were surveyed to assess what topics would be of interest to them. As students matured, their interest in career development increased. The local 4-H program utilized this data to redesign the programs and projects offered in this parish for older youth, and as a result the local 4-H program saw a 21% increase in senior-age 4-H retention.

Researching the problem of retention of high school aged youth in 4-H programs, Ellison and Harder (in press) looked at factors that contributed to retention in 4-H from the perspective of youth, and used Ajzen's 1991 Theory of Planned Behavior as the theoretical framework for their research. In this theoretical framework, Azjen noted that three beliefs influence human intentions, behavioral beliefs, normative beliefs, and control beliefs. The researchers examined what 4-H participants believed were the consequences of 4-H membership, what was socially acceptable about 4-H membership, and what degree of their decision to remain in 4-H was in their own personal control among eight information-rich youth using in-depth interviews in a qualitative study. Results from this study indicated that seven of eight subjects indicated that 4-H was not perceived as a normal behavior among their peers and non-familial groups. However, parental influence, and in particular maternal influence, was found to be an important factor in the subjects' decision to remain involved in 4-H in high school. This encouragement, or sometimes insistence from their mothers, that these youth remained in 4-H lead youth to self-reported positive experiences in the program. The respondents eventually made strong friendships in the program and reported they were glad they remained active in 4-H programs (Ellison & Harder, in press).

Research on Youth Engagement and Retention in Other Youth Organizations

Other youth programs have also struggled with retaining youth participants. Understanding the retention of youth in other youth programs was beneficial to this study. Gillard and Witt (2008) looked at recruitment and retention in youth programs. Youth decided to continue participation in a youth program based on many interacting intrapersonal, interpersonal, and contextual factors. In this study the researchers were trying to determine and understand these factors. The researchers found that youth were active agents in their own development and were influenced by their own personal ecology. Personal ecology referred to the social surroundings you were currently in that influenced their behaviors. Those youth who were intrinsically motivated to engage in activities were more likely to re-enroll in youth programs. These data, combined with many social and peer factors, psychological processes, program structure and contexts, led to youth participation (Gillard and Witt, 2008).

Gillard and Witt (2008) provided dozens of recommendations for youth-serving organizations to develop a recruitment and retention plan to attract and retain youth participants. The researchers recommended things like teen leadership councils, teen positions on organizational governing boards, and designing programs specific to developing youth leadership in their program as ways to help youth find their voice. To help organizations provide intentional programming, the researchers suggested that youth-serving organizations should ensure youth have input on program content and scheduling, provide diverse programming for a variety of ages and backgrounds, and incorporate community resources into programming. To help youth feel emotionally and physically safe, the researchers recommended that youth-serving organizations train program staff to conduct risk assessments with youth, develop safe parameters for programming, and ensure that staff are positive role models for youth. The researchers emphasized community service as a way to connect youth to their community and

improve self-esteem, while developing job skills. Attendance was addressed by the researchers, as they recommended that organizations offer extrinsic awards for participation. The researchers also recommended that organizations should create a buzz about what was happening in youth organizations. In this study the data found that whenever family members were also involved in youth programs, youth retention was improved. Also, the youth programs had to be adequately staffed with caring, respectful adults to increase youth retention. Environments for youth programs needed to be inviting, comfortable, safe, and friendly. When organizations provided adequate transportation to and from youth programmatic activities, participant retention in youth programs increased. The researchers also found that when youth organizations collaborated with one another, programmatic gaps were filled, and this increased retention (Gillard and Witt, 2008).

Pearce and Larson (2006) investigated the process through which youth become engaged in youth development programs. Pearce and Larson maintained that engagement in programming helps bolster youth retention and also increases the likelihood that youth will benefit from the programming. This qualitative study looked at how youth who were initially disengaged with a youth program became engaged. The researchers approached this study from the notion of motivation, which led to engagement. The researchers discovered three stages of engagement. The Entry Phase was a phase in which the youth were not intrinsically motivated to be there and were only motivated by external demands to attend. In the Personal Connection stage, the youth reported a transformation in motivation. In this stage, the youth were able to relate the message or goals of the organization to needs in their own lives. In the Intrinsic Motivation stage, the participating youth "shifted from passive attendance of program meetings and events to becoming active participants" (Pearce & Larson, 2006, p. 125). Similar to other

literature, peer support and interaction and support from caring adults appeared important in fostering engagement in youth development programs.

Understanding the influences parents have on their children's participation in community activities was of interest to Fletcher, Elder, and Mekos (2000). These researchers, who also used data from the Iowa Youth and Families Project, investigated in what ways 362 ninth and tenth grade Iowa youth were influenced by their parents to be involved in extracurricular activities. In this study the researchers measured parental community involvement, parental warmth, parental reinforcement, and adolescent involvement in community activities. Parental community involvement referred to whether or not parents were involved in community activities, hours invested in these activities, and if the parents held any leadership roles in the organizations. Parental warmth referred to parental warmth toward children as measured by videotaped interactions between parents and children as they discussed topics of concern or controversy. These videotapes were coded to determine warmth, which "was defined as expressions of care, concern, support, or encouragement exhibited by the parent toward the adolescent" (Fletcher, Elder, & Mekos, 2000, p. 5). Parental reinforcement referred to the degree that parents enforced the importance of civic activities. Adolescent involvement in community activities referred to the ninth and tenth graders' involvement in all extra-curricular activities. The researchers found parental warmth and parental reinforcement to be the most important roles in promoting their children to participate in extracurricular activities, particularly among families in which the parents were not involved in civic organizations or activities (Fletcher, Elder, & Mekos, 2000).

In 2005, after reviewing sixty-four evaluation summaries from the Harvard Family Research Project's Out of School Time Program Evaluation database, Lauver and Little proposed strategies to increase youth enrollment and retention in out-of-school programs.

Regarding the issue of youth retention, Lawver and Little recommended that to retain youth members, youth serving organizations should "provide a clear message that attendance is important; set realistic goals to promote regular attendance; balance academic activities with other leisure activities; provide incentives for regular participation and long-term retention; and keep teens involved with opportunities for leadership opportunities, community service, and paid employment (Lauver & Little, 2013, pp. 79-85).

Belonging in Formal Education

The Essential Element of Belonging in 4-H, including the inference that young people who participate in 4-H need to feel like they belong in order to have a positive experience in 4-H, was discussed earlier in this chapter. Unfortunately, not much prior research exists in 4-H youth development that quantified and measured a sense of belonging in 4-H youth. However, a large body or research on student perceived sense of belonging in schools exists. For example, in the arena of formal education, Beck and Malley called for a "new pedagogical model that promotes a sense of community and belonging by strengthening teacher-student relationships and integrating cooperative learning strategies into the curriculum" (Beck & Malley, 1998, p. 5). They pointed to the changing American family and the proliferation of at-risk students as a need to strengthen belonging in educational situations. They also called for an emphasis on belonging in the student-teacher relationship (Beck & Malley, 1998).

This notion of belonging has been a popular subject to study in social sciences as it relates to youth engagement in organized activities. Akiva, Cortina, Eccles, and Smith (2013) looked at Out of School Time (OST) activities for middle school youth and investigated belonging and cognitive engagement of youth in those programs. The data showed that an

increased participation in these OST programs correlated with an increased sense of belonging and cognitive engagement.

Sense of Belonging and the Psychological Sense of School Membership (PSSM) Scale

Research such as Kress (2003), Kress (2006), and Wagoner (2010), points to the sense of Belonging as the key Essential Element in 4-H Youth Development Programs. Without Belonging, there is no opportunity to engage young people long enough to develop the other elements of Mastery, Generosity, or Independence (Tessman, Gressley, Parrott, & Hall, 2009). If a young person does not feel like she or he belongs, she or he will most likely not remain in the program long enough to enjoy the positive benefits of life-skills development or PYD. A survey of the literature made it clear how imperative understanding this sense of belonging is to engaging young people and keeping them engaged in the 4-H program. It was imperative to utilize an instrument to measure a sense of belonging in the members of a 4-H club.

In 1993, Goodenow developed the Psychological Sense of School Membership Scale (PSSM), an instrument designed to measure students' perceived sense of belonging to their respective school. Goodenow (1993) developed this scale to use with early and mid-adolescent students to measure the construct of belonging through having students answer 18 subjective items on a five-point Likert scale. The inventory includes three subscales that measure a student's feelings of belonging, rejection, and acceptance in their school, and school in general.

Several studies have provided data to support the use of the PSSM in research. Hagborg (1994) investigated the psychometric properties of the PSSM and to extend the use of the instrument on high school students, and provided a factor analysis of the items included in the instrument. "This investigation provides further support for the psychometric properties of the PSSM. In addition to the scale's strong internal consistency, this research supports the PSSM's test-retest reliability and extended its use to high school age youth" (Hagborg, 1994, pp. 8-9).

You, Ritchey, Furlong, Shochet, and Boman (2011), investigating the latent structure of the PSSM scale, suggested three components that emerged from their research: caring relationships, acceptance, and rejection. These researchers found support for utilizing the PSSM instrument to measure student perceived sense of belonging through the components of perceptions of relationships with caring adults in the school, student acceptance in school, and the level of disrespect or rejection in school. "These three factors capture empirically related but different psychological experiences linked to a wide variety of outcomes for children" (You et al., 2011, p. 233). Ye and Wallace (2014) also identified three components of the PSSM. "With separation of the method effect, the PSSM scale demonstrates three clean-cut dimensions of school belonging, with the school, peers, and general teachers" (Ye & Wallace, 2014, p. 212).

Researchers have used the PSSM with a variety of schools all over the world to measure the perceived sense of school belong in formal educational settings, and to compare sense of belonging between schools. For example, Hassinger (2016) used the PSSM to compare sense of belonging between students enrolled in character education programs in charter schools and non-charter schools. Phillipson and McFarland (2016) used the PSSM as a tool in correlating parenting style, sense of school belonging, academic performance, and mastery between boys and girls in Australia. Nicely (2012) utilized the PSSM to measure students' perceived sense of belonging while comparing intervention programs among rural female students in the Appalachians. Adelabu (2007) used the PSSM to investigate correlations between time perspective and school membership to academic achievement among low-income African American youth in a school in the Southeastern United States. Sanchez, Colon, and Esparza (2005) used the PSSM to study correlations between perceived sense of school belonging and gender with school achievement among urban Latino students in the Midwestern United States.

Hagborg (1998) compared perceived sense of belonging in school between students with learning disabilities and nondisabled students in a semirural high school in upstate New York.

Conceptual Framework

Since this study focused on the factors that contribute to older 4-H club members continuing to participate in 4-H programs, existing theories were utilized to develop a conceptual framework for the study. The Essential Elements of a Quality 4-H Program (Kress, 2003) was operationalized into the conceptual model. The researcher combined elements from the essential elements/critical elements of 4-H programs (Kress, 2003), Positive Youth Development Theory (Lerner et al., 2014), and the 4-H Life Skills model (Targeting Life Skills Model, 2015) to suggest a model to explain why older youth continue to participate in 4-H programming. Figure 2.3 combines the elements of these other theories and models.

This model sought to explain how a young person might choose to re-enroll in a 4-H club. A young or new 4-H club member joins an organized 4-H club. In this model, if the club incorporates the essential elements of a good 4-H program (Kress, 2013), this will lead to the young person feeling a sense of belonging, developing independence, mastering project specific information, and learning generosity. Belonging may be the key essential element in helping the young person feel she or he is an important member of the club, feeling safe while participating in 4-H and developing a positive relationship with a caring adult. This leads to youth-adult partnerships in 4-H which, combined with activities and experiences related to 4-H projects, lead to Positive Youth Development. As the young person participates in 4-H projects, she or he gains life skills. This Positive Youth Development and these life skills the young person gains through 4-H participation lead to a desire for the youth to re-enrollment in 4-H. When the youth re-enrolls and gains subsequent year(s) of 4-H experience, this long-term participation in 4-H leads to the youth developing the Six C's of Positive Youth Development (Lerner, 2014). The

young person will utilize these Six C's as they mentor new or younger 4-H members, to help them feel a sense of Belonging and to help them experience Mastery, Independence, and Generosity. Thus, retaining older youth will lead to increased mentoring in younger youth, which will increase the quality of the overall 4-H program, which will help lead to retention of more older youth in the future.

Summary

This chapter began with a review of literature specific to constructs that the researcher utilized to mold into the conceptual model for this study. Understanding the benefits of participating in 4-H was important to understand why youth might desire to join and remain in 4-H for multiple years. This long-term participation should lead to life skills development (Targeting Life Skills Model, 2015), as well as Positive Youth Development (Lerner, et al., 2014). Young people who participate in 4-H for multiple years should develop Competence, Character, Connections, Confidence, and Contribution (Caring or Compassion).

The essential elements of a quality 4-H program were presented in order to explain factors that contribute to youth experiencing a quality experience in 4-H. Kress (2003) explained that young people need to experience a sense of belonging, learn independence, begin to master subject matter, and learn generosity through quality 4-H programs to truly get the most out of their 4-H participation.

A review of literature and research related to youth engagement was discussed, including issues related to youth ending their 4-H involvement, as well as youth who retained their involvement. Finally, a conceptual model of this research study was provided.

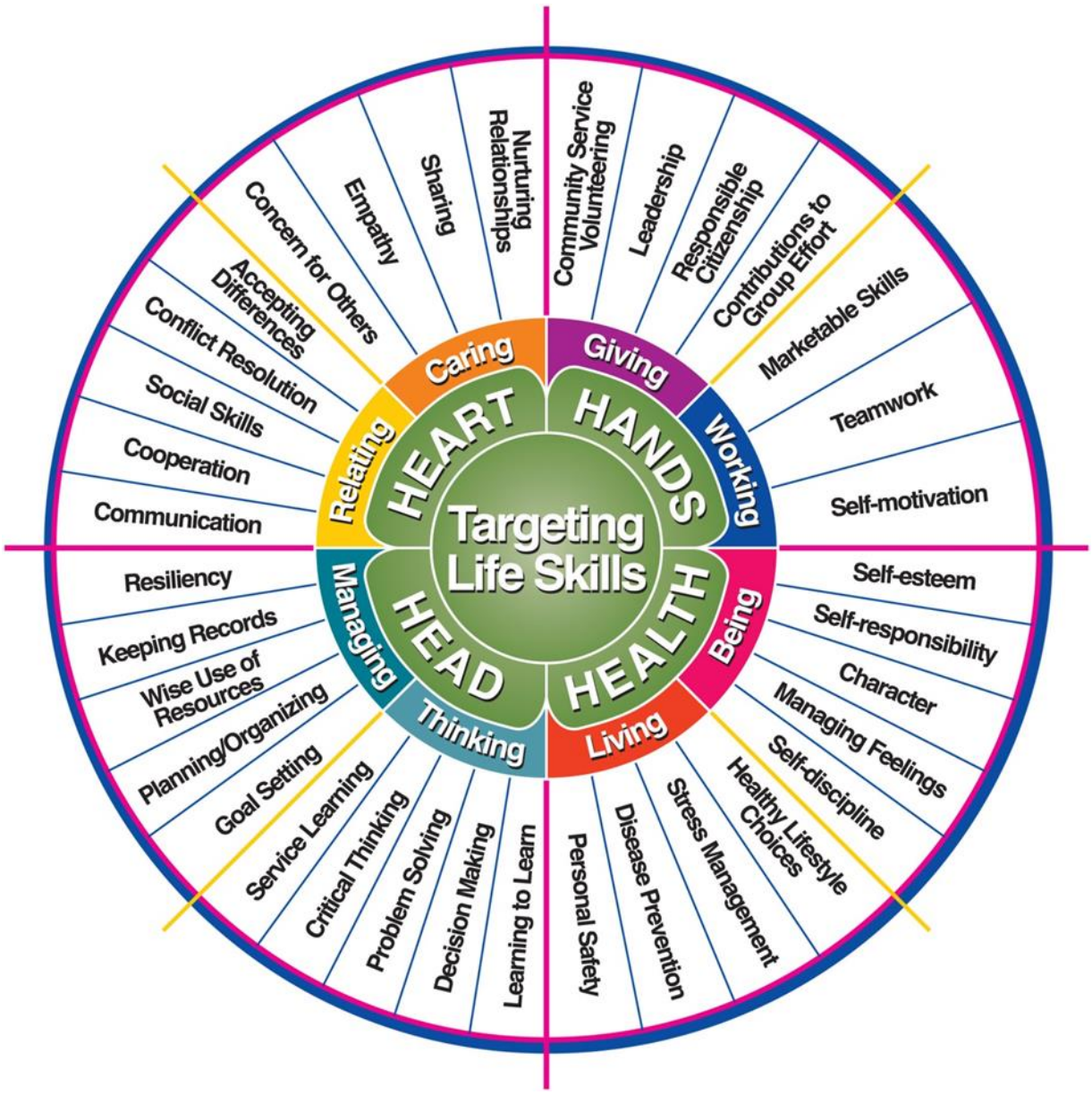

Figure 2-1. 4-H Targeting Life Skills Model (Iowa State Website, 2015).

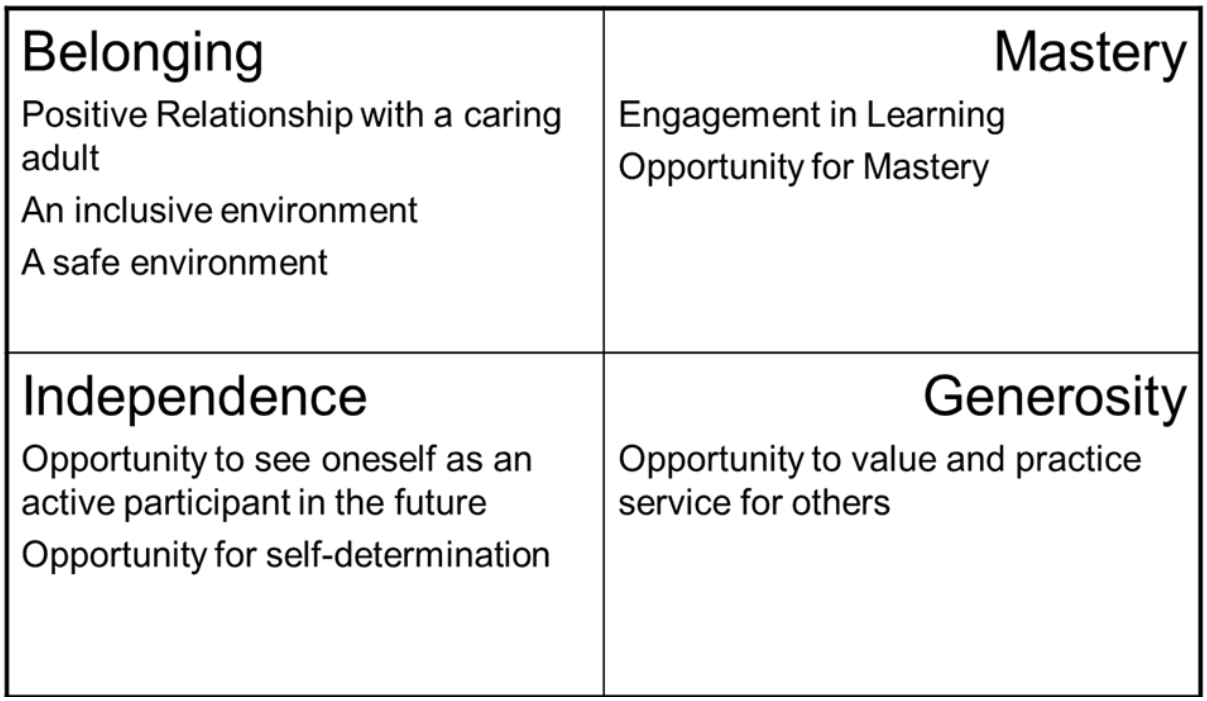

Figure 2-2. Essential Elements of 4-H (Kress, 2003). This model serves as the theory behind the Conceptual Model in this study.

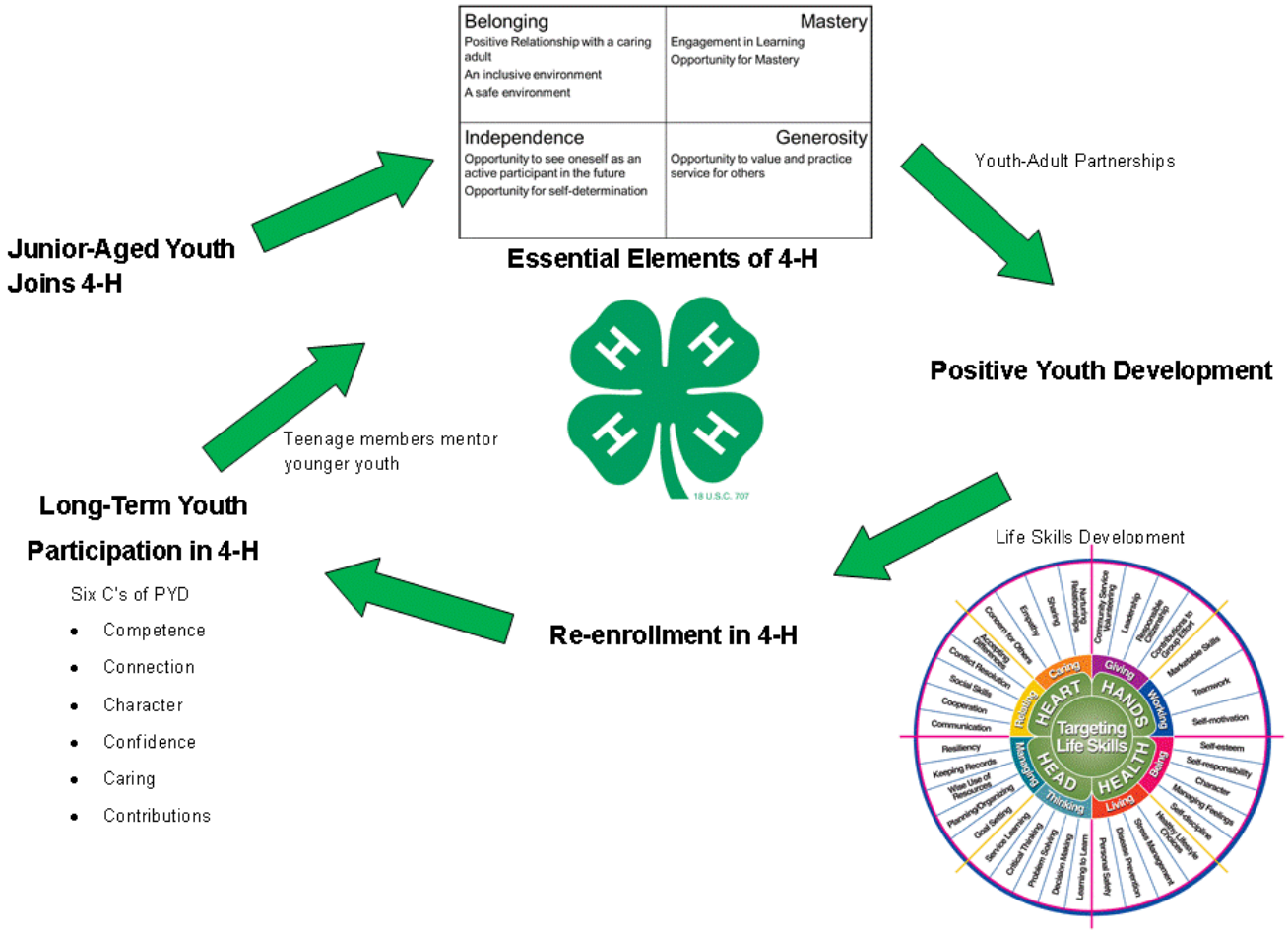

Figure 2-3. Proposed Conceptual Framework Based on Previous Research. This model serves as the proposed Conceptual Model in this study.

CHAPTER 3
METHODOLOGY

The purpose of this study was to identify the perceived sense of belonging of Florida 4-H members in middle and high school, as well as factors that influenced participation of middle and high school students in Florida 4-H clubs. Chapter 1 also discussed the history of 4-H youth development, and the current situation of 4-H youth development in Florida. Definitions of key terms were provided, as well as the purpose and significance of this study.

Based on a review of the literature, Chapter 2 presented the notion that 4-H programming benefits its youth participants, particularly those who remain in the program for several years or longer. Young people who remain enrolled in a quality 4-H program that incorporates the essential elements of 4-H (Kress, 2003) for an extended period of time develop life skills (Targeting Life Skills Model, 2015), and this continued participation in 4-H leads to positive youth development (Lerner et al., 2014). Even though long-term participation has been shown to be beneficial to youth who remain in the program, many young people have left the program after elementary school. The largest defection from the program occurred among youth who were of middle school age (Florida 4-H Website, 2018). Trends in other youth serving organizations have also pointed to a loss of middle school aged participants. A conceptual model was presented which attempted to explain how youth who participate in a quality 4-H program develop life skills and assets and then give back to future generations of younger 4-H members.

Purpose and Objectives

The purpose of the study was to explore why Florida middle and high school aged 4-H club members decided to remain active in a 4-H club, and how this related to perceived sense of belonging. The specific objectives of this study were as follows:

- Describe factors that contribute to teenage youth deciding to remain enrolled in a 4-H club,
- Describe perceptions of teenage 4-H youth regarding a sense of belonging in the 4-H program,
- Analyze the association among factors that contribute to the decision to remain in a 4-H club and indicators of belonging among teenage youth in 4-H, and
- Determine what programs, events, activities, projects, or other opportunities Florida 4-H can emphasize to attract and retain older youth.

Research Design

This study was quantitative in nature and utilized a descriptive design. The purpose of the survey was to measure the perceived sense of belonging among middle- and high-school aged 4-H club members in Florida, to determine the factors that influenced these middle school youth to continue participation in 4-H, and to explore the relationship between these factors and perceived sense of belonging. All correspondence with respondents was through email sent through 4HOnline, the online enrollment system utilized for Florida 4-H members. A letter to all parents or guardians of sixth through twelfth grade members enrolled in 4-H at the time of this study was emailed through 4HOnline. Then a letter about the survey, along with a link to the survey instrument on Qualtrics, was sent to all sixth through twelfth grade youth through email on four occasions: October 26, 2017; November 6, 2017; November 28, 2017; and December 15, 2017. The survey instrument was emailed each time through 4HOnline. Each youth was only allowed to complete the survey one time. The researcher addressed non-response error by comparing the results of the respondents who completed the instrument in October after the first email, to the latest respondents who completed the instrument after the final email on December 15, using t-tests that compared PSSM scores between early and late respondents, and scores on each of the seven additional statements in the instrument. There were no statistical differences between these early and late respondents. Both Miller and Smith (1983) and Lindner, Murphy,

and Briers (2001) recommend comparing the results of early and late respondents as a tool to address non response error, noting that late respondents are generally similar to non-respondents. Based on that argument, it is assumed that the respondents are representative of the target population:

> Research has shown that late respondents are often similar to nonrespondents. Thus, one way to estimate the nature of the replies of nonrespondents is through late respondents. Late respondents are statistically compared to early respondents using the evaluation data to justify generalizing from the respondents to the sample…respondents can be dichotomized into those that respond early and those that respond late. These two groups can be compared statistically to determine differences between the groups. With late respondents assumed typical of nonrespondents, if no differences are found, then respondents are generalized to the sample" (Miller & Smith, 1983, p. 48).

In this study, since t-tests revealed no statistically significant differences between the responses of early respondents and late respondents, this helps build the case that the respondents in this study represent the population, and therefore it is appropriate to utilize inferential statistics in this study. In addition, demographics for respondents are compared to demographics from the population in Table 3-1.

County 4-H Agents were asked to promote the importance of the survey locally. The researcher addressed coverage error by sending the survey instrument to every member of the population, in this case all 5,967 middle and high school youth enrolled in a 4-H community club in Florida.

Population and Sample

In this study the target population was middle and high school Florida 4-H members of 4-H community clubs who remained active in the 4-H program in the 2017-18 4-H year. For the purposes of this study, these 4-H members were defined as those middle and high school students who were actively involved in a local 4-H community club with a current enrollment on

file in the Florida 4-H Online enrollment program in the 2017-18 4-H year (*N*=5,967). Overall enrollment data in Florida 4-H were utilized from this online enrollment database for the years 2017 and 2018.

The sampling frame for this study was the 4HOnline enrollment database, which is an online enrollment database and data collection system to manage enrollment of all 4-H youth in all 4-H delivery modes and project areas. This enrollment system allows for storage of demographic and programmatic information for each youth enrolled in 4-H community clubs and all other types of delivery modes in the Florida 4-H Youth Development Program. Utilizing 4HOnline, 4-H faculty, staff, and volunteers can email youth participants at various levels. This system was available to the researcher to access middle and high school aged 4-H members state-wide. The sample size was determined by the researcher using purposive sampling. All middle and high school 4-H community club members, those in grades six through twelve, received four invitations to participate in the survey and a link to the online survey through email.

Demographics of the Population of Interest

At the time of this study there were 5,967 youth in grades six through twelve who were enrolled in a Florida 4-H club during the 2017-18 4-H year. For this study, enrollment data for October of 2017 were utilized. Table 3-1 shows the enrollment data at the time of the study for the population of interest, and also shows demographic data of respondents. The demographics demonstrate the pattern of a smaller number of youth remaining enrolled in each successive grade. For instance, at the time of this study, there were 1,216 youth in sixth grade enrolled in a 4-H Club in Florida, and only 513 twelfth grade youth enrolled in a 4-H Club in Florida.

Instrumentation

The data collection instrument was based on Goodenow's (1993) Psychological Sense of School Membership (PSSM) instrument (Appendix A). This instrument has been utilized for decades in formal education to gauge students' sense of belonging in their schools. This instrument contains 18 items designed to measure a respondent's sense of belonging to her or his school, taking into account constructs such as the extent to which she or he feels personally accepted, respected, included, and supported by adults and peers in her or his school. This instrument was designed to provide a psychometrically sound measure of the construct of belonging in schools, and is written in a 5-point Likert format with the choices *not true at all* (1), *slightly true* (2), *true about half the time* (3), *mostly true* (4), and *completely true* (5). On the PSSM Instrument, scores range from 0 to 90. Any participant who scores over 45 points is considered to have a sense of belonging. The higher the score, the stronger the perceived sense of belonging (Goodenow, 1993). The developer of the instrument, Carol Goodenow, found the entire 18 item instrument to have a reliability coefficient of .88 using Cronbach's alpha (Goodenow, 1993). Goodenow also established construct validity by contrasting suburban and urban student groups and compared their PSSM scores with their race, ethnicity, grade, length of residence in their community, and social category, and found support for scale validity (Goodenow, 1993). For this study, the PSSM instrument was modified to fit the 4-H study group. The word *school* was substituted to *4-H club*, the word *students* was substituted to *club members*, and the word *teacher* was substituted to *club leader*.

In addition, in order to address some depth of why these participants remained enrolled in 4-H, the researcher added seven additional questions answered on the same five point scale utilized in the modified PSSM. These additional questions included in the instrument were

based on the literature review and approved by the panel of experts. These experts included faculty members in the University of Florida Department of Agricultural Education and Communication, the University of Florida Department of Family, Youth, and Community Sciences, and Florida 4-H Regional Specialized Agents. Florida 4-H enrollment data from 2017-18 were also utilized in this study to define the target population. The purpose of these additional seven questions was to identify the factors that were most important in influencing continued participation in 4-H among these middle and high school youth. The researcher utilized principles from the Tailored Design Method to construct and conduct this survey, including concepts of writing and organizing/grouping questions, designing survey instruments for use on the internet, and ensuring the online instrument works on various web platforms (Dillman et al., 2014). For example, Dillman maintained that for self-administered surveys, such as the one utilized in this study, a respondent can deeply process early items and as they continue through the instrument a respondent's mind can become cluttered (Dillman, 2014). That is why items 2-19 of this instrument were the PSSM instrument modified for 4-H, designed to measure sense of belonging in 4-H; the remainder of the instrument was designed to measure individual factors that influenced the respondent to continue to enroll in 4-H. Dillman also recommended embedding a link to the survey in the email sent to potential respondents, and this was done in this study, and grouping like questions together on one webpage (Dillman, 2014).

Pilot Testing

The instrument was pilot tested in July of 2017 at Florida 4-H University with 21 4-H club members who were recently graduated seniors in the class of 2017 who were interviewing for 4-H scholarships. The participants in the pilot study were asked individually after completing the instrument if all of the items made sense, or if any phrasing or directions were

confusing. All (*n*=21) respondents indicated that every item was clear to them and made sense. The entire instrument had a reliability coefficient of .87 using Cronbach's alpha. The first eighteen items represented the PSSM instrument modified for use in 4-H, and had a reliability coefficient of .94 using Cronbach's alpha.

Response Rate

This instrument was sent to all 5,967 youth in grades 6-12 who were enrolled in a 4-H community club at the time of this survey in the 2017-18 4-H year. Of the 5,967 youth, 538 youth opened the survey, and answered the first item, in which the participants indicated they had read the letter that provides information about the survey, and they either agree or disagree to participate. Only one youth disagreed with this statement. However, not all of the 537 youth who responded yes to the first item answered every other question on the instrument. In this study, 406 youth completed all 25 items in the instrument, and 127 youth partially completed the survey instrument, or were considered a break-off with sufficient information. Using the American Association for Public Opinion Research response rate calculator for Response Rate 2, which includes respondents who completely and partially completed the instrument (AAPOR, 2018), the response rate for this study was .09, which indicates a 9% response rate.

Items two through eighteen of the instrument represented the modified PSSM instrument to measure perceived sense of belonging among respondents. For the purposes of this study, only data from those youth who answered at least 13 of the 18 questions that make up the modified PSSM portion of the instrument are included in the analysis; 473 youth answered at least 13 of the 18 questions on the modified PSSM instrument, and their responses are included in any statistical analysis of this study that involves PSSM score or PSSM mean score.

The response rate for this study was nine percent. This particular population of 4-H community club members has posed a challenge to other researchers in the past in regard to rate of response. For instance, Slavin (2016) surveyed all Florida 4-H community club members enrolled in an animal science or STEM project, and had a response rate of 8.54%. In this study, the researcher utilized a strategy recommended by Miller and Smith (1983), as well as Lindner, Murphy, and Briers (2001), who recommended comparing the responses of early respondents to the survey to the responses of late respondents as a way to handle nonresponse error, since late respondents often have similar characteristics of non-respondents. In this study, a comparison of the results of the respondents who completed the instrument in October after the first email, to the latest respondents who completed the instrument after the final email on December 15, using t-tests revealed no statistical differences between these early and late responders in either PSSM score, or in responses to the seven additional items.

Data Collection

Before any data could be collected, all communications and the survey instrument were approved by the University of Florida Internal Review Board (Appendix B). Enrollment data from 2017-18 from 4HOnline were utilized in this study. The researcher sent an email to parents of 5,967 middle and high school 4-H youth with an attached letter on University of Florida letterhead to encourage survey participation (Appendix C). A follow-up email was then sent to each middle and high school 4-Her with an attached letter on University of Florida letterhead encouraging participation in the study (Appendix D). An email with instructions and a link to the survey instrument was sent to each middle and high school 4-H member enrolled in a 4-H community club in Florida four times: October 26, 2017; November 6, 2017; November 28, 2017; and December 15, 2017. No emails bounced back, as emails in the 4HOnline system are updated annually; however, what is not known is how many of the email addresses associated

with youth respondents actually are managed by the youth, or how many are actually parent/guardian email addresses. The survey was closed on January 12, 2018. The surveys were collected by the researcher at the University of Florida in Gainesville. These surveys were confidential. Although it was assumed that respondents were similar to the target population, data from this study may not be representative of other states. This lack of random sampling may limit generalizability of these results to other states.

Data Analysis

Data from the surveys were analyzed using SPSS© for Windows™ statistical software. Frequencies and means were calculated for responses to items that were related to factors that respondents rated as factors influencing their decision to remain enrolled in 4-H. The PSSM score was calculated for each respondent on a scale of 0-90. The relationship between PSSM score and each of the seven factors that youth rated as factors influencing their decision to remain enrolled in 4-H was explored using Spearman's rank correlations. The interpretation of this statistic (Lomax & Hahs-Vaughn, 2012) is as follows (with a p-value $\leq$.05):

- -1 to -.5 Strong Negative Correlation
- -.499 to -.3 Medium Negative Correlation
- -.299 to -.1 Small Negative Correlation
- -.099 to .099 No Correlation
- .1 to .299 Small Positive Correlation
- .3 to .499 Medium Positive Correlation
- .5 to 1 Large Correlation

In this study the researcher utilized a priori alpha level of .05 to determine statistical significance of correlations between identified factors and continued participation in 4-H by youth participants.

Chapter Summary

In this study the researcher tailored the Psychological Sense of School Membership instrument for use in a 4-H context by utilizing the full 18-question PSSM instrument (and changing the word 'school' to '4-H'), and also adding an additional 11 questions to determine why the respondents remained enrolled in 4-H. In developing the survey instrument, the Psychological Sense of School Membership (PSSM) questionnaire was adapted to use in a 4-H club application (Goodenow, 1993). The instrument was adapted by changing the word *school* to *4-H club*, and changing the word *teacher* to *4-H club leade*r, and this made up questions 2-19 of the study. In addition to adapting the 18 questions on the PSSM to a 4-H audience, seven other items were added to further explore why middle and high school youth remain enrolled and continue to participate in 4-H. This adaptation was approved by a panel of 4-H youth development experts that consisted of a state 4-H youth development specialist from the University of Florida, Florida 4-H Regionalized Specialized Agents, and three faculty members from the Department of Agricultural Education and Communication at the University of Florida. These surveys, along with Florida 4-H enrollment data from 2017-18, were utilized to measure perceived sense of belonging among respondents and to identify the factors that influenced these middle and high school students to participate in Florida 4-H clubs. Results of the study are presented in Chapter 4.

Table 3-1. Enrollment Data for Florida 4-H 6-12 graders compared to respondents in the study.

Demographic Characteristic	Respondent Population *f* (%)	Target Population *f* (%)
Male	220 (40.89)	2,316 (38.82)
Female	318 (59.11)	3,651 (61.18)
American Indian Native Alaskan	2 (0.37)	79 (1.32)
Asian	1 (0.19)	55 (0.92)
Black or African American	23 (4.28)	353 (5.92)
Native Hawaiian or other Pacific Islander	0 (0.00)	1 (0.02)
White	476 (88.48)	5,088 (85.27)
Youth Indicating More Than One Race	10 (1.86)	164 (2.75)
Undetermined	26 (4.83)	227 (3.80)
Hispanic	39 (7.25)	557 (9.34)
Non-Hispanic	499 (92.75)	5,410 (90.66)
NE District	71 (13.2)	1,029 (17.24)
NW District	39 (7.25)	728 (12.20)
Central District	154 (28.62)	1,534 (25.71)
SE District	118 (21.93)	1,245 (20.86)
SW District	108 (20.07)	1,431 (23.98)
No District Selected	45 (8.36)	
Sixth grade	88 (16.37)	1,216 (20.38)
Seventh grade	81 (15.05)	1,017 (17.04)
Eight grade	84 (15.61)	965 (16.17)
Ninth grade	82 (15.24)	871 (14.6)
Tenth grade	78 (14.5)	742 (12.44)
Eleventh grade	64 (11.9)	643 (10.78)
Twelfth grade	61 (11.34)	513 (8.6)

CHAPTER 4
RESULTS

Purpose and Objectives

Realizing that many youth begin leaving 4-H during the middle school years and continuing through high school, this study was designed to measure the perceived sense of belonging among those youth who remain enrolled in 4-H in middle and high school, and to describe factors that contributed to the continued enrollment of older youth. Guided by the theoretical framework, which combined concepts from the Essential Elements of 4-H Model, the 4-H Life-Skills Model, and concepts from Positive Youth Development theories, the purpose of this study was to explore why those Florida middle and high school aged 4-H club members who remained enrolled in 4-H decided to remain active in a 4-H club. The specific objectives of this study were as follows:

- Describe factors that contribute to teenage youth deciding to remain enrolled in a 4-H club,
- Describe perceptions of teenage 4-H youth regarding a sense of belonging in the 4-H program,
- Analyze the association among factors that contribute to teenage youth deciding to remain enrolled in a 4-H club, and indicators of belonging among teenage youth in 4-H, and
- Determine what programs, events, activities, projects, or other opportunities Florida 4-H can emphasize to attract and retain older youth.

Factors that Contribute to Teenage Youth Deciding to Remain Enrolled in a 4-H Club

Participants were presented with seven statements in this study (α = .76), and ranked the importance of each item to their decision to remain in 4-H, using a 5-point Likert scale format. Frequencies were calculated for each factor, and 372 respondents chose *completely true* or *mostly true* for the factor *my parent/guardian wanted me to remain in 4-H*; 311 respondents

chose *completely* true or *mostly true* for the factor *4-H activities and events are why I remain in 4-H*. Next, 291 respondents chose *completely true* or *mostly true* for the factor *interaction with friends is why I remain in 4-H*. Then 283 respondents chose *completely true* or *mostly true* for the factor *participation in 4-H competitive events/competitions are why I remain in 4-H*, and 272 respondents chose *completely true* or *mostly true* for the factor *4-H projects are why I remain in 4-H*. The next factor was *interaction with a caring adult (leader, 4-H agent) is why I remain in 4-H*, with 241 respondents choosing *completely true* or *mostly true*. The factor with the lowest number of respondents choosing *completely true* or *mostly true* was *participation in 4-H camp is why I remain in 4-H*, with 141 respondents choosing *completely true* or *mostly true*. Tables 4-1 through 4-7 show the frequencies of each choice for the seven factors considered in this study for all respondents, as well as the frequencies broken out for those respondents in grades 6-8 as well as for those respondents in grades 9-12.

When frequencies are broken out by grade, the orders of factors based on the number of respondents who chose *completely true* or *mostly true* changed. For respondents in grades six through eight, while parental influence remains the highest rated factor (n = 185), the factor related to 4-H projects is ranked second with 141 middle school aged respondents choosing *completely true* or *mostly true.* Next 133 6-8 grade respondents chose *completely true* or *mostly true* for the factors *4-H activities and events are why I remain in 4-H* as well as *interaction with friends is why I remain in 4-H.* These are followed by the factors *participation in 4-H competitive events/competitions are why I remain in 4-H* (n = 125), *interaction with a caring adult (leader, 4-H agent) is why I remain in 4-H* (n = 121), and finally *participation in 4-H camp is why I remain in 4-H* (n = 85).

For respondents in grades 9-12, the order remains unchanged from the order of the entire sample except for the fact that there is a tie for the third-highest ranked factor with 158 respondents in these grades choosing both *interactions with friends is why I remain in 4-H* as well as *participation in 4-H competitive events/competitions are why I remain in 4-H*.

Modes for each factor were calculated, and each factor had a mode of 5, except for the factor *participation in 4-H camp is why I remain in 4-H*, which had a mode of 1. Medians were also calculated for these factors. The median score for the factor *my parent/guardian wanted me to remain in 4-H* was 5, which corresponded with the choice *completely true*. The median scores for the all the remaining factors was 4, which corresponded with the choice *mostly true*, except for the factor *participation in 4-H camp is why I remain in 4-H* (*Median* = 2), which corresponded with the choice *slightly true*.

In an attempt to shed light on the differences between scores due to similarities between factors in both mode and median results, means were also calculated for each factor. The factor *my parent/guardian wanted me to remain in 4-H* had the highest mean score (*M* = 4.46, *SD* = 1.03); followed by the factor *4-H activities and events are why I remain in 4-H* (*M* = 4.04, *SD* = 1.15). Next was the factor *interaction with friends is why I remain in 4-H* (*M* = 3.83, *SD* = 1.28), followed by the factor *participation in 4-H competitive events/competitions are why I remain in 4-H* (*M* = 3.72, *SD* = 1.35), then the factor *my 4-H projects are why I remain in 4-H* (M = 3.71, SD = 1.37). Next was the factor *interaction with a caring adult (leader, 4-H agent) is why I remain in 4-H* (*M* = 3.40, *SD* = 1.42), and finally the factor *participation in 4-H camp is why I remain in 4-H* (*M* = 2.54, *SD* = 1.61). Table 4-8 lists these factors from highest to lowest by mean score. Table 4-9 lists these factors by mean score for those respondents in grades 6-8, and Table 4-10 lists these factors by mean score for those respondents in grades 9-12.

Describing Perceptions of a Sense of Belonging in 4-H

Guided by the Essential Elements of 4-H (Kress, 2003), belonging is accepted in 4-H youth development as the cornerstone element upon which all other essential elements of 4-H are built upon in order to engage youth participants in educational projects and activities that will lead to positive youth development. However, research measuring a 4-H member's perceived sense of belonging was not found when reviewing the literature. In this study, a widely accepted instrument, the Psychological Sense of School Membership developed by Goodenow (1993), had been utilized in formal education. In this study, this instrument was modified for use in a 4-H club context and used to measure the perceived sense of belonging among the participants in this study.

Scores on the Modified PSSM

Questions 2-19 of the research instrument utilized in this study modified the Psychological Sense of School Membership instrument developed by Goodenow (1993) for use in a 4-H club setting (Appendix A). The PSSM is an 18-item instrument designed to measure participating youths' perceptions of belonging and psychological engagement in their school. This study was designed to measure participants' perceived sense of belonging and psychological engagement in their 4-H club. The PSSM has been determined by Goodenow (1993) to have an alpha score of .88 for reliability. For this particular study, the 18 item PSSM modified for use with 4-H had a Cronbach's alpha coefficient of .92.

To score this portion of the instrument, responses are on a 5-point scale format. As is true in the PSSM, in this modified PSSM for use with 4-H club members items 3, 6, 9, and 12 were reverse coded. Goodenow (1993) considered any score higher than 45 to indicate that a student felt like they belonged in their school, with higher scores indicating a stronger sense of

belonging. This same interpretation was utilized in this study. Any respondent scoring above a 45 on the 18 items that made up the modified PSSM were considered to feel a sense of belonging in their 4-H club. In all, 98.4% of participants scored above a 45, which indicated that these youth had a perceived sense of belonging in their 4-H club. In fact, 21.9% of respondents (n = 104) scored a 90, which is the highest possible score on the PSSM. Table 4-11 summarizes participant scores on the revised PSSM.

The two statements that participants ranked highest were *adult leaders in my 4-H club are not interested in people like me* (M = 4.76, SD = 0.79); and *I wish I were in a different 4-H club* (M = 4.75, SD = 0.72). The lowest rated statement was: *other club members in my 4-H club take my opinion seriously* (M = 4.10, SD = 1.01). Table 4-12 includes the mean score for each element on the modified PSSM, items 2-19 of the instrument utilized in this study sorted by mean score, as well as the mean total score.

Relationship Between Belonging and Factors to Remain Enrolled in 4-H

The relationship between a young person's perceived sense of belonging in a 4-H club and the factors that are important to them remaining in 4-H was explored using Spearman's rank-order correlation.

Based on the results of the study, while all of the factors were significantly and positively correlated with sense of belonging, the strongest statistically significant correlation exists between a high sense of belonging and interaction with a caring adult, such as the 4-H club leader, a volunteer, or the 4-H agent, $r_s(425) = .46$, $p < .001$. This represents a medium positive correlation, at the higher end of the medium scale (Lomax & Haus-Vaughn, 2012). Also of note is the correlation between sense of belonging and 4-H activities and events, $r_s(422) = .41$, $p < .001$, and the correlation between sense of belonging and interacting with friends in 4-H, $r_s(424)$

= .4, $p < .001$. Perceived sense of belonging as measured by the modified PSSM has a small, positive correlation with the remaining factors. In order, the next highest positive correlation is between PSSM score and the factor 4-H projects, $r_s(421) = .26$, $p < .001$, followed by the correlation between perceived sense of belonging and related to 4-H competitions, $r_s(425) = .23$, $p < .001$. The lowest two correlations were a small, positive correlation between perceived sense of belonging and 4-H camp, $r_s(416) = .22$, $p < .001$; and the correlation between perceived sense of belonging and the factor of parental influence to remain in 4-H, $r_s(422) = .22$, $p < .001$. Table 4-13 shows the correlation between factors that influence youth remaining in 4-H and their perceived sense of belonging.

Summary

This study was designed to measure factors that influence middle- and high-school youth participation in 4-H clubs, and to measure the perceived essential element of belonging among participants. Participants were presented with seven statements in this study, and ranked importance of each factor using a five-point scale. The factor of parent/guardian influence was identified by participants as higher than all other factors for all respondents regardless of grade. The factor relating to activities and events was the next highest scoring factor for all respondents and for those respondents in grades 9-12, but when separating 6-8 grade respondents from 9-12 grade respondents, the factor relating to 4-H projects was the next-highest rated factor. The lowest rated factor identified by respondents was the factor related to 4-H camping.

Scores were calculated for the PSSM modified for use in 4-H, and 98.4% of respondents scored over 45, and are considered to have a perceived sense of belonging in their 4-H club. In fact, 21.8% of all participants scored a 90, which is the highest possible score on this instrument. The mean PSSM score for all participants in this study was 82.00. This indicates that

participants had a high sense of belonging in their 4-H club. The factor that had the strongest correlation with PSSM score was interaction with a caring adult. Previous research had suggested that this factor was a key element in fostering a sense of belonging.

Table 4-1. Frequencies of Scores for the Factor My Parent/Guardian Wanted me to Remain in 4-H (n = 429)

	All respondents (n = 429)		6-8 grade respondents (n = 203)		9-12 grade respondents (n = 226)	
Score	f	Percentage	f	Percentage	f	Percentage
Completely true	305	71.10	161	79.31	144	63.72
Mostly true	67	15.62	24	11.82	43	19.03
True about half the time	21	4.90	8	3.94	13	5.75
Slightly true	21	4.90	7	3.45	14	6.19
Not true at all	15	3.50	3	1.48	12	5.31

Table 4-2. Frequencies of Scores for the Factor 4-H Activities and Events are Why I Remain in 4-H (*n* = 427).

	All respondents (*n* = 427)		6-8 grade respondents (*n* = 203)		9-12 grade respondents (*n* = 224)	
Score	*f*	Percentage	*f*	Percentage	*f*	Percentage
Completely true	202	47.31	84	41.38	118	52.68
Mostly true	109	25.53	49	24.14	60	26.79
True about half the time	66	15.46	38	18.72	28	12.50
Slightly true	30	7.03	18	8.87	12	5.36
Not true at all	20	4.68	14	6.90	6	2.68

Table 4-3. Frequencies of Scores for the Factor Interaction with Friends is Why I Remain in 4-H (n = 437).

	All respondents (n = 437)		6-8 grade respondents (n = 209)		9-12 grade respondents (n = 228)	
Score	f	Percentage	f	Percentage	f	Percentage
Completely true	182	41.65	81	38.76	101	44.30
Mostly true	109	24.94	52	24.88	57	25.00
True about half the time	64	14.65	31	14.83	33	14.47
Slightly true	52	11.90	24	11.48	28	12.28
Not true at all	30	6.86	21	10.05	9	3.95

Table 4-4. Frequencies of Scores for the Factor Participation in 4-H Competitive Events/Competitions are Why I Remain in 4-H (*n* = 439).

	All respondents (*n* = 439)		6-8 grade respondents (*n* = 211)		9-12 grade respondents (*n* = 228)	
Score	*f*	Percentage	*f*	Percentage	*f*	Percentage
Completely true	169	38.50	74	35.07	95	41.67
Mostly true	114	25.97	51	24.17	63	27.63
True about half the time	70	15.95	36	17.06	34	14.91
Slightly true	37	8.43	25	11.85	12	5.26
Not true at all	49	11.16	25	11.85	24	10.53

Table 4-5. Frequencies of Scores for the Factor My 4-H Projects are Why I Remain in 4-H (*n* = 428).

	All respondents (*n* = 428)		6-8 grade respondents (*n* = 205)		9-12 grade respondents (*n* = 223)	
Score	*f*	Percentage	*f*	Percentage	*f*	Percentage
Completely true	171	39.95	88	42.93	83	37.22
Mostly true	101	23.60	53	25.85	48	21.52
True about half the time	65	15.19	31	15.12	34	15.25
Slightly true	43	10.05	17	8.29	26	11.66
Not true at all	48	11.21	16	7.80	32	14.35

Table 4-6. Frequencies of Scores for the Factor Interaction With a Caring Adult (Leader, 4-H Agent) is Why I Remain in 4-H (*n* = 439).

	All respondents (*n* = 439)		6-8 grade respondents (*n* = 211)		9-12 grade respondents (*n* = 228)	
Score	*f*	Percentage	*f*	Percentage	*f*	Percentage
Completely true	127	28.93	63	29.86	64	28.07
Mostly true	114	25.97	58	27.49	56	24.56
True about half the time	75	17.08	38	18.01	37	16.23
Slightly true	55	12.53	23	10.90	32	14.04
Not true at all	68	15.49	29	13.74	39	17.11

Table 4-7. Frequencies of Scores for the Factor Participation in 4-H Camp is Why I Remain in 4-H (*n* = 429).

	All respondents (*n* = 429)		6-8 grade respondents (*n* = 203)		9-12 grade respondents (*n* = 226)	
Score	*f*	Percentage	*f*	Percentage	*f*	Percentage
Completely true	87	20.27	57	28.08	30	13.27
Mostly true	54	12.59	28	13.80	26	11.51
True about half the time	50	11.66	24	11.82	26	11.51
Slightly true	50	11.66	21	10.34	29	12.83
Not true at all	188	43.82	73	35.96	115	50.88

Table 4-8. Factors Contributing to Continued 4-H Enrollment for All Respondents.

Factor	Mean	SD	*n*
My parent/guardian wanted me to remain in 4-H.	4.46	1.03	429
4-H activities and events are why I remain in 4-H.	4.04	1.15	427
Interaction with friends is why I remain in 4-H.	3.83	1.28	437
Participation in 4-H competitive events/competitions are why I remain in 4-H.	3.72	1.35	439
My 4-H projects are why I remain in 4-H.	3.71	1.37	428
Interaction with a caring adult (leader, 4-H agent) is why I remain in 4-H.	3.40	1.42	439
Participation in 4-H camp is why I remain in 4-H.	2.54	1.61	429

Table 4-9. Factors Contributing to Continued 4-H Enrollment for 6-8 Grade Respondents.

Factor	Mean	SD	*n*
My parent/guardian wanted me to remain in 4-H.	4.64	0.84	203

		1.2	20
4-H activities and events are why I remain in 4-H.	3.84	5	3
		1.3	20
Interaction with friends is why I remain in 4-H.	3.71	5	9
Participation in 4-H competitive events/competitions are why I remain in		1.3	21
4-H.	3.59	8	1
		1.2	20
My 4-H projects are why I remain in 4-H.	3.88	7	5
Interaction with a caring adult (leader, 4-H agent) is why I remain in 4-		1.3	21
H.	3.49	8	1
		1.6	20
Participation in 4-H camp is why I remain in 4-H.	2.88	7	3

Table 4-10. Factors Contributing to Continued 4-H Enrollment for 9-12 Grade Respondents.

Factor	Mean	SD	*n*
		1.1	22
My parent/guardian wanted me to remain in 4-H.	4.30	6	6

		1.0	22
4-H activities and events are why I remain in 4-H.	4.20	3	4
		1.2	22
Interaction with friends is why I remain in 4-H.	3.93	0	8
Participation in 4-H competitive events/competitions are why I remain in		1.3	22
4-H.	3.85	1	8
		1.4	22
My 4-H projects are why I remain in 4-H.	3.56	5	3
Interaction with a caring adult (leader, 4-H agent) is why I remain in 4-		1.4	22
H.	3.32	5	8
		1.4	22
Participation in 4-H camp is why I remain in 4-H.	2.23	9	6

Table 4-11. Summary of Participant Scores on the Modified PSSM.

Score	Total Number of Participants	Number of Participants in Grades 6-8	Number of Participants in Grades 9-12	Percentage of all Participants
90	104	46	58	22
85-89	156	70	86	33
80-84	76	34	42	16.1
75-79	54	29	25	11.4
70-74	32	13	19	6.8
65-69	14	8	6	2.9
60-64	12	7	5	2.5
55-59	11	7	4	2.3
50-54	5	4	1	1
45-49	2	1	1	0.4
40-44	4	3	1	0.9
35-39	2	0	2	0.5
30-34	1	0	1	0.2
Total	473	222	251	100

Table 4-12. Perceptions Regarding Sense of Belonging by 4-H Club Members.

	Mean	SD	*n*
Adult leaders in my 4-H club are not interested in people like me.	4.76	0.79	465
I wish I were in a different 4-H club.	4.75	0.72	449
I am treated with as much respect as other members in my 4-H club.	4.69	0.70	439
People at my 4-H club are friendly to me.	4.69	0.64	466
Adults at my 4-H club respect me.	4.66	0.69	454
Sometimes I feel as if I don't belong in my 4-H club.	4.65	0.80	463
It is hard for people like me to be accepted at my 4-H club.	4.64	0.84	445
I feel proud to belong to my 4-H club.	4.64	0.80	450
People at my 4-H club know that I can do good work.	4.63	0.70	449
There is at least one adult leader I can talk to in my 4-H club if I have a problem.	4.63	0.90	465
Other members of my 4-H club like me the way that I am.	4.57	0.74	449
I feel like a part of my 4-H club.	4.56	0.83	448
I am included in lots of activities in my 4-H club.	4.53	0.90	438
Most club leaders in my 4-H club take my opinions seriously.	4.45	0.89	460
I can really be myself at my 4-H club.	4.44	0.91	450
People at my 4-H club notice when I am good at something.	4.32	0.92	443
I feel very different from most other members in my 4-H club.	4.28	1.16	439
Other club members in my 4-H club take my opinion seriously.	4.10	1.01	457
Total Modified PSSM Score	81.99	9.94	441

Table 4-13. Correlation between factors that influence youth remaining in 4-H, and their perceived sense of belonging measured by the PSSM.

	PSSM Mean Score	My parent/ guardian wanted me to remain in 4-H.	My 4-H projects are why I remain in 4-H.	4-H activities and events are why I remain in 4-H.	Participation in 4-H competitive events/ competitions are why I remain in 4-H.	Participation in 4-H camp is why I remain in 4-H.	Interaction with friends is why I remain in 4-H.	Interaction with a caring adult (leader, 4-H agent) is why I remain in 4-H.
PSSM Mean Score	____							
My parent/guardian wanted me to remain in 4-H.	.22**	_____						
My 4-H projects are why I remain in 4-H.	.26**	.13**	_____					
4-H activities and events are why I remain in 4-H.	.41**	.26**	.4**	_____				
Participation in 4-H competitive events/	.23**	.14**	.38**	.47**	_____			

competitions are why I remain in 4-H.

Table 4-13. Continued.

	PSSM Mean Score	My parent/ guardian wanted me to remain in 4-H.	My 4-H projects are why I remain in 4-H.	4-H activities and events are why I remain in 4-H.	Participation in 4-H competitive events/ competitions are why I remain in 4-H.	Participation in 4-H camp is why I remain in 4-H.	Interaction with friends is why I remain in 4-H.	Interaction with a caring adult (leader, 4-H agent) is why I remain in 4-H.
Participation in 4-H camp is why I remain in 4-H.	.22**	.15**	.15**	.41**	.3**	_____		
Interaction with friends is why I remain in 4-H.	.4**	.24**	.25**	.51**	.36**	.43**	_____	
Interaction with a caring adult (leader, 4-H agent) is why I remain in 4-H.	.46**	.22**	.29**	.44**	.28**	.44**	.57**	_____

**. Correlation is significant at the 0.01 level (2-tailed).

CHAPTER 5
CONCLUSIONS

The purpose of this study was to measure the perceived sense of belonging among those 4-H members in sixth through twelfth grade who continued to be enrolled in a 4-H club in Florida, describe the factors that contributed to these youth to continue enrollment in 4-H, and to analyze the relationship between belonging and these factors. These data could be instrumental to help Florida 4-H professionals identify what programs, activities, events, projects, or other opportunities to emphasize in order to retain a larger number of older youth, and lead to a programmatic framework to make 4-H programming more appealing to older youth.

Perceived sense of belonging among respondents was measured utilizing the Psychological Sense of School Membership instrument modified for use with a 4-H audience. Factors important to older youth remaining in 4-H were measured utilizing seven additional items. This instrument was approved by a panel of experts and the University of Florida Institutional Review Board, and this instrument was pilot tested with graduating seniors before emailing to the population of interest. Results showed that respondents had an extremely high perceived sense of belonging. Results also showed that more respondents (n = 372) chose *completely true* or *mostly true* for the factor related to parental encouragement to remain enrolled, followed by 4-H activities and events (n = 311), then interaction with friends (n = 291), competitive events and competitions (n = 283), and 4-H projects (n = 272). The next factor was interaction with a caring adult (n = 241), and the factor with the lowest number of respondents choosing *completely true* or *mostly true* was involvement in 4-H camp (n = 141). A correlation of PSSM score and factors contributing to continued enrollment showed that interactions with a caring adult had the largest correlation with perceived sense of belonging ($r_s(425) = .46$, $p < .001$).

The following is a discussion of opinions and thoughts based on the results of this study, including thoughts and implications of perceived sense of belonging as measured in respondents, various factors of importance related to remaining in 4-H for respondents, and possible relationships between perceived sense of belonging and these factors. Also discussed are events currently organized by Florida 4-H that might appeal to older youth, as well as implications for these and future events. Finally a conceptual model is proposed.

Implications

Belonging: An Essential Element of 4-H

This study has implications for 4-H professionals since it quantifies the perceived sense of belonging in 4-H. Since belonging is widely accepted as the cornerstone essential element in 4-H youth development (Wagoner, 2010), adapting a tool that has been accepted in formal education research for decades for use with 4-H club audiences might prove to be beneficial to quantify and measure this construct. Most research found and reviewed here discussed a sense of belonging in 4-H programs in qualitative terms; this study quantified a sense of belonging among participants. Perhaps this PSSM modified for use in 4-H audiences could be beneficial to further research in 4-H youth development.

Young people need to feel a part of something larger than themselves. In general, young people want to be a part of groups, and these groups can be formal or informal, and they can also be positive or negative influences on their members; of course, it is hoped that involvement with 4-H will positively influence and develop participants. Not surprisingly, data from this study confirms the extremely high perceived sense of belonging older 4-H members who choose to remain involved in 4-H have for their organization. This makes sense since the essential element of belonging is overwhelmingly regarded as the base upon which youth development in 4-H

begins. "Providing opportunities for belonging is the single most important thing that we can do for young people" (Kress, 2014, p. 8). It also makes sense that young people who have chosen to stay in the program feel invested, and that their scores would indicate a high perceived sense of belonging.

It is of interest that the modified PSSM score is significantly, positively correlated with all the factors explored in this study. This might indicate that at least one of these factors is important to some youth, and most youth indicate many of these factors as reasons for remaining involved in 4-H. The strongest correlation was between PSSM score and a youth's interaction with a caring adult, such as a 4-H club leader or 4-H agent. This would make sense based on the literature. Wagoner (2010), in his work on the 4-H Essential Element of Belonging, describes positive relationships with a caring adult as "without a doubt one of the most important elements in 4-H clubs. Young people in clubs are directly impacted by relationships with caring adults…continued positive contact with those caring adults as the club functions together over time creates a mentoring and supportive relationship that nurtures the young person as they grow and develop… When adults convey a sense of truly caring about youth in clubs, young people feel stronger to try new things, tackle more difficult tasks, and set higher goals for themselves and for their club. Adults in the club provide guidance to youth members through coaching, feedback, and discussion" (Wagoner, 2010, p. 1). The findings in this study would support these statements.

Importance of Parental/Guardian Buy-In

The data were quite clear as to the importance of several factors that help older youth decide to remain involved in 4-H. Interestingly, parental influence was rated most highly by participants in this study as influencing their decision to remain enrolled in 4-H as evidenced by

the number of respondents who chose *completely true* or *mostly true* for this factor (*n* = 372). In fact, this factor was ranked highest by both 6-8 grade and 9-12 grade respondents. This should be of particular interest to 4-H professionals, who often design marketing efforts for youth participants, but who might not think to market the benefits of participation to parents or guardians of youth participants. This would also align with the findings of previous research, such as Chan & Elder (2001), who found that children in rural communities are influenced by their parents' social involvement to also get involved in social activities and organizations. "Active citizens are created early through parents' actions, both social and economic. Through their own involvement, parents socialize children into a civic culture, engender community values, and encourage participation in youth groups" (Chan & Elder, 2001, p. 26).

Many researchers, such as Lerner, et al. (2014), have provided data supporting the positive benefits to long-term youth participation in 4-H programs. Much of the data had been utilized in the past by 4-H professionals to justify budgetary or policy support for 4-H programs. Perhaps these data could be used to formulate a marketing campaign targeted to parents to encourage them to enroll their children in 4-H, and to continue to keep their children enrolled in 4-H clubs throughout their adolescence.

Developing 4-H Events of Relevance for Older Youth

Participants in this study indicated that 4-H events and activities as a reason to stay active in 4-H had the second highest number of respondents who chose c*ompletely true* or *mostly true* for this factor (*n* = 311). When broken out by grade, this was the second highest ranked factor for 9-12 grade respondents, and the third highest ranked response for 6-8 grade respondents. This made sense, particularly in Florida, which offers several state-level, overnight/weekend events for senior 4-H members (those members ages 14-18), but mostly offers only county-level programming for junior (ages 8-10) and intermediate (ages 11-13) 4-H members. Results from

this study indicate that these state-level events, which are high in technical content, and also high in context, are extremely important to keeping participating youth motivated and engaged in the program. This aligned with the findings of Hartley (1983), who found a direct association between club member participation in 4-H activities with re-enrollment among first year members in West Virginia. Other researchers have emphasized the importance of high-context, high-content events and activities (Kress, 2006). This study supported the notion that events are important to youth deciding to remain in 4-H.

The survey instrument used in this study explored events twice; once in the modified PSSM as an indicator of perceived sense of belonging (I am included in lots of activities in my 4-H club); and in the portion of the instrument exploring factors that influence youth remaining in 4-H (4-H activities and events are why I remain in 4-H). In addition to the wide variety of local events available to youth of all ages in Florida 4-H, a brief synopsis of state-level 4-H events in Florida might prove to be helpful in the discussion of the importance of these events to older youth retention. Florida 4-H Day at the Capital is a one-day event where youth ages 5-18 and their parents are encouraged to come to Tallahassee, the state capital, and interact with their elected officials. This event occurs sometime in the spring while the legislature is in session, and any age group of 4-H youth can participate, and parents can also attend. In addition to meeting with lawmakers, 4-H youth and their families tour museums and interact with educational booths situated throughout the capital complex.

Intermediate State is the premiere state event open to intermediates. This weekend-long leadership training is held at a 4-H camp in early June for Intermediate 4-H members (those 4-H members ages 11-13), and is open to any interested 4-H member in that age group in Florida.

This event also introduces Intermediate youth to state-wide opportunities such as competitions, and the state 4-H Executive Board.

Leadership Adventure Weekend is typically at one of Florida's 4-H camps in autumn, is open to youth ages 13-18, and is an advanced, weekend-long, leadership training that also incorporates, and teaches leadership concepts, through the arts and humanities. This event is also open to any youth in Florida. This event includes youth from the senior 4-H age group (ages 14-18), but also includes thirteen-year-olds from the 4-H intermediate age group. This decision is intended to encourage more intermediates to remain engaged in leadership opportunities and overall participation in 4-H. Perhaps this model of intentionally engaging intermediate 4-H members could be replicated to encourage increased retention among intermediates.

Florida 4-H hosts three 4-H Executive Board weekends at a 4-H camp, and these events are open to those youth ages 14-18 who serve on the Florida 4-H teen leadership board for Florida 4-H. This body serves as the state teen leadership council for Florida 4-H. Florida's state 4-H officers chair the overall meetings and committee meetings at this event. In addition to learning leadership skills, participants serve on committees to provide input and leadership to all other Florida 4-H state events.

The 4-H Legislature program is a mock legislature program in which teenage youth spend five days in Tallahassee, and act as representatives and senators in the actual legislative chambers, passing bills the youth have worked on writing prior to the event, and the youth stay in dorm rooms at Florida State University. Youth can serve in the role of a senator, representative, media member, or lobbyist. The state 4-H council president serves as governor for the week, and ultimately signs bills into law at her or his discretion.

Florida 4-H University is a four day event at the University of Florida, and participating youth choose educational tracts taught by faculty members, get a taste of college life for a week, and take educational classes in topics of interest, often related to the youths' 4-H projects. This event also includes many state-level competitions which include demonstrations, illustrated talks, speeches, the state photo and graphic design contest, the state talent contest, and state officer elections are held at this event. At the time of this study, the prices for these events ranged from $20 for 4-H Day at the Capitol, to $250 for Florida 4-H University.

In addition to these state-level events, there are a host of local and district-level 4-H events and activities, as well as regional and national 4-H events such as the Southern Region Teen Leadership Conference, National 4-H Conference, National 4-H Congress, and Citizenship Washington Focus; these activities are open to youth ages 14-18.

It seems older youth need expanded opportunities like these state, district, regional, and even national events to remain engaged in a program like 4-H for an extended period. These events provide an opportunity for participating youth to expand their technical knowledge on a subject, and to interact with peers from outside their typical circle of friends who share similar interests. Perhaps this social aspect of interaction around a shared theme or topic might be what made events and activities of such importance to participants in this study.

Of note is the lack of these expanded programs for younger youth in the junior and intermediate age categories. Perhaps if there were some intentional effort to engage younger youth in some level of out-of-county opportunities, and some formal way to inform them of future opportunities available to them as Senior 4-H members, that might motivate more youth to remain enrolled in 4-H.

An implication for 4-H professionals is the importance of social interactions with peers in the formative early adolescent years. At this developmental age, young people are broadening their social circles, often seeking to make new friends. Perhaps Florida 4-H needs more of these out-of-county events, based around the common theme of a 4-H project of interest, to engage a larger number of teenagers and to keep more youth enrolled past middle school. Also it is imperative to provide youth with targeted marketing pieces at the appropriate times to educate potential event participants about the opportunities available for older youth in state level events.

Interactions with Peers

Although not rated as highly as parental encouragement and participation in events and activities, also of significance in this study was the factor of interaction with peers. This researcher expected this to have had more respondents choose *completely true* or *mostly true* for this factor, but this factor was rated third in those responses (n = 291). Nonetheless, interactions with friends was still a factor indicated by participants as a reason to remain enrolled in 4-H. It makes sense that if a sense of belonging is important to sustaining youth in the program, then positive interactions with peers, and the ability to make friends in 4-H would be of importance. The findings in this study supported Hassinger's (2016) findings that positive interaction with peers is important to perceived sense of belonging among youth of both high and low socio-economic status. An implication for 4-H professionals is to be intentional about including time for youth to interact with one another at club meetings, events, and even at competitive events. This data seemed to indicate the need for interaction with youth of a similar age and of at least some similar interests.

Participation in 4-H Competitive Events/Competitions

At first glance, it might seem odd to separate competitions and competitive events from other 4-H events, since these are types of events. However, the element of competition differentiated these types of events in the mind of this researcher to categorize them separately from other types of events. Some organizations, such as youth athletic leagues, are centered around the premise of competition. Some individuals are by nature more competitive than others. It was of interest in this study to see how important competitions were to older 4-H youth. Keith (1997) found that youth participation in competitive events was an important factor in Texas parents enrolling their children in 4-H. In this study, participation in competitions/competitive events, while not as highly ranked as some other factors, were an still an important factor in remaining enrolled in 4-H for some respondents. There are several examples of competitions that youth can participate in through 4-H. For instance, many competitions exist around the premise of various 4-H projects. These would be competitions exhibiting 4-H projects, such as livestock shows or vegetable garden projects. Many 4-H projects have competitive judging contests associated with the project, such as livestock judging, horticultural judging, dairy judging, poultry judging, and the forest ecology competition. Young people can compete in speech and demonstration contests related to 4-H projects and the local, district, and, for 14-18 year olds, at the state level. In addition there are contests such as the 4-H Share the Fun competition in Florida, which is a type of talent contest at the local, district, and state level (older youth only), and the 4-H Gator Pit program for 14-18 year old entrepreneurs. For some youth, participation in these competitions is important for their continued involvement in 4-H. Interestingly, there was at one time several national individual and team competitions in 4-H. Over the past few decades most of the individual competitions have been discontinued, leaving mostly team judging events as the primary competitions that remain at the national level.

Perhaps revitalization of national competitive events could encourage some older youth to whom competition is a motivator to remain involved in 4-H in order to qualify and compete in national competitions.

4-H Projects as a Factor for Continued Enrollment

Young people have about 100 project areas to choose from in 4-H, and participation in a 4-H project remains a vital part of the program, and hearkens back to the roots of 4-H in the earliest youth corn and tomato clubs over a century ago. In this study, 141 respondents in 6-8 grade rated the factor related to 4-H projects *completely true* or *mostly true* as a reason to remain in 4-H, which was the second highest ranked response for this age group. In contrast, those respondents in grades 9-12 ranked this factor fifth highest with 131 rating this factor completely true or mostly true. Perhaps this indicates that 4-H projects are more important for younger adolescents. More research is needed to determine if these differences are statistically significant.

Much emphasis has been placed on participation in, and completion of, 4-H projects in the organization. Leman (2010) identified 4-H projects as the vehicle to help youth develop the 4-H essential element of mastery. The 4-H project has been the vehicle for hands-on, experiential learning, and 4-H projects drive much of what is done in 4-H clubs and in the entire organization. Often clubs are organized by project, or youth will choose clubs because of the 4-H projects of focus in that particular club. Many 4-H competitions are organized around specific project areas. In fact, the 4-H project is often considered to be the spark that initially captures a young person's interest in participation. For example, a young person might initially join a local 4-H club because she or he wants to raise a particular animal, or wants to learn how to sew. It is interesting that in this study with older youth, the 4-H project is in the middle of the

pack when compared to other factors in importance in a young person's decision to remain in 4-H among those respondents in grades 9-12.

This is of particular interest for 4-H professionals, who are interested in the mastery of 4-H project skills for youth participants, and also career exploration in relation to 4-H projects. Perhaps what this data is indicating is that, while the personal 4-H project is still of some considerable importance to the individual teenager in 4-H, other factors are just as important or even more important, and those factors need to be addressed by 4-H professionals to entice young people to remain in 4-H. With the emphasis on factors such as events and activities, perhaps events highlighting particular project areas such as forestry or animal science would be of interest to middle and high school youth. For example, the equine tract at a general 4-H event like Florida 4-H University might be expanded to a 4-H Equine Summit or something of the sort.

The Interesting Factor of Interaction with a Caring Adult

Participants in this study rated the factor interaction with a caring adult as the factor with the next-to-lowest number of participants choosing this factor as a reason to remain in 4-H. This was unexpected by this researcher, because prior research had found interaction with a caring adult to be an important aspect of the 4-H Essential Element of belonging (Kress, 2003; Wagoner, 2010). However, when correlating this factor with PSSM score, this factor of interaction with a caring adult had the strongest correlation with PSSM score; so this means that a positive interaction with a caring adult, while perhaps not identified by the participants in this study as a top factor to remaining in 4-H, had the strongest correlation to a sense of belonging, as measured by the PSSM. This would then align with prior research linking interaction with a caring adult with both a sense of belonging (Kress, 2003; Wagoner, 2010), and with a motivation to join and remain in 4-H (Ferrari & Turner, 2006). This interaction with a caring adult, such as a

4-H club leader, or a 4-H volunteer who shares expertise on a particular project area, seems to set the stage for a young person feeling welcomed and a part of the 4-H club experience. Perhaps these adults make youth participants feel safe in the 4-H club, and could be the groundwork for exploring relationships with other youth participants, exploring 4-H projects, help make participants aware of 4-H events, activities, competitions, and camps, and perhaps even encourage parents to initially enroll youth in 4-H, a sort of a baseline factor that youth might take for granted while they enjoy their 4-H experiences, but that is critically important to feeling a sense of belonging in a 4-H club.

Young people in Florida 4-H clubs have the opportunity in 4-H to interact with adult mentors. These are often volunteers, including club leaders, or project leaders within a club. This could also be paid 4-H faculty or staff; however, typically most interaction would be with adult volunteers in the 4-H member's local club.

Camping

Interestingly, particularly in light of the importance to participants of the factor events and activities, is how relatively unimportant 4-H camping is to middle and high school youth who participated in this study when compared all other factors. This came as a surprise to this researcher, who anecdotally had witnessed hundreds of teenage 4-H members enjoy experiences at 4-H camp throughout the years. However, this might make sense in that 4-H county residential camps in Florida have historically targeted 8-12 year old campers, with older youth serving in a role as cabin counselor. Perhaps this responsibility appeals to a subset of middle- and high-school aged youth; for instance, those youth interested in working with children as a future career, or those youth who are interested in leadership, or volunteerism.

At the time of this study, Florida had three 4-H residential camps. Camp Timpoochee is located in the Florida panhandle near Destin, Florida; 4-H Camp Cherry Lake is located in Madison, Florida; and 4-H Camp Cloverleaf is located in Lake Placid, Florida. All three camps operate five-day residential camps throughout the summer for Florida youth. This study found that camping experiences were not of as much importance to continued enrollment in 4-H as all of the other factors. Some specialty camps in Florida 4-H do target middle- and high-school aged youth; however, these camps only serve less than 500 youth state-wide annually. Perhaps if more 4-H camping experiences were targeted to meet the programmatic needs and interests of teenage participants, this factor would be of increased importance.

4-H Community Clubs

In the Florida 4-H Youth Development Program, the 4-H Community Club Program is often considered the gold standard of long-term engagement with participating youth, since often times the same young person might belong to the same club for several years. For instance, it is not uncommon for a young person to join a 4-H club at age five and remain in the same club until graduation from high school. However, these cases are becoming rarer as a larger number of older youth continue to leave the program.

Perhaps it is time to rethink programming targeted for teenage youth. There is a chance that local community clubs open to all age groups are not the best delivery mode to meet the needs of today's teenager living in Florida. Based on data from this study, it appears respondents valued events and activities and interactions with other peers with similar interests. Perhaps specialized clubs or learning communities, wherein teenagers can explore and master subject matter beyond the local project, might be appealing to older youth. These clubs or learning communities could be accessible to teenagers in-person, but might actually be more appealing to

teenagers if they could be accessed online or through smartphones. Those youth who prefer to remain in a 4-H community club could serve in a role of a teen leader or mentor for younger youth.

Communication in Florida 4-H Clubs

Currently, 4HOnline is the primary tool for communication between State 4-H Headquarters and individual 4-H families. Due to the lower than hoped for response rate of this study, perhaps it is time to rethink mass emails through 4HOnline as an efficient way to communicate directly with 4-H club members. For example, even though email addresses are updated for participating youth annually during enrollment, it is not known whether or not this is in fact an email address that is checked regularly by the individual youth, or perhaps the email address provided belongs to a parent or guardian. Communication channels in the state program need to be readdressed and clarified to ensure effective, two-way communication that includes State 4-H Headquarters, local Extension faculty and staff, parents/guardians, and 4-H club members.

Proposed Framework

Real youth development takes time. Short-term programs do have some educational value, but the ability to work with the same youth for an extended period of time, sometimes even years, allows a young person to positively develop life skills and mastery in subject matter. Keeping young people engaged is imperative for this type of long-term impact. Understanding the interactions between the Essential Elements of a Quality 4-H Program (Kress, 2003), Positive Youth Development Theory (Lerner et al., 2014), and the 4-H Life Skills model (Targeting Life Skills Model, 2015), can help describe how a young person chooses to re-enroll, and, over time, how a young person progresses through the process of positive development. These interactions

were important to developing the conceptual framework. Figure 5-1 provides the conceptual framework.

This model sought to explain how a young person might initially join a 4-H club, grow through experiences, and then choose to re-enroll in a 4-H club, and incorporates the factors that influence the decision to remain in 4-H explored in this study. In this model, when a new member joins a 4-H club, if the club incorporates the essential elements of a good 4-H program (Kress, 2013), this will lead to the young person feeling a sense of belonging, developing independence, mastering project specific information and competencies, and learning generosity. Belonging may be the key essential element in helping the young person feel she or he is an important member of the club, feeling safe while participating in 4-H and developing a positive relationship with a caring adult. This leads to youth-adult partnerships in 4-H which, combined with activities and experiences related to 4-H projects, lead to Positive Youth Development. As the young person participates in 4-H projects, she or he gains life skills. The process, over time, of positive development and the development of skills leads to the young person re-enrolling in their 4-H club. Over several years, this long-term participation in 4-H leads to the youth developing into contributing members of society. This teenager, who has already benefited from the program, will help mentor younger members, encouraging these new, younger members to feel a sense of belonging, and starting the process once again for younger youth.

Recommendations for Further Research

This study identified factors influential in middle- and high-school youth deciding to re-enroll and remain engaged in the Florida 4-H Youth Development Program, and measured the sense of belonging in 4-H for participants in the study. Further research could be beneficial to

the overall body of knowledge available to 4-H professionals. Some examples of proposed future studies include:

- Conduct a similar study in other states to determine if results in other states are similar to results found in this study in Florida.
- Conduct this study with two samples: middle- and high-school youth who remain enrolled in 4-H, and middle- and high-school youth who have left the program.
- Conduct this study with youth who have remained active in other competing youth-serving organizations, and compare the results to 4-H audiences.
- Conduct this study with a cohort of 4-H youth in 4th grade, and then measure this same group again in sixth, eighth, and tenth grades, and compare results over time for the same youth.
- Conduct this study with 4-H alumni to see if their perspective changed over time.

Summary

In this study, factors were identified that contribute to middle- and high-school youth continuing to participate in a 4-H Club in Florida. Prior research had identified belonging as an essential element to a quality club, and a base requirement for other essential elements. This study also measured participants' perceived sense of belonging using a modified PSSM instrument. This instrument, developed by Goodenow (1993) for use in schools, was modified for use in a 4-H setting.

Parental influence was the highest-ranked factor for participation in 4-H by participants in the study, followed by 4-H activities and events. These two factors were higher ranked by participants than the next three factors, which were interaction with peers, participation in competitions, and 4-H projects. These were all higher-ranked than the factor interaction with a caring adult, which was higher ranked than the lowest-ranked factor in this study, participation in 4-H camp.

The mean perceived sense of belonging for participants in this study was extremely high. This makes sense since participants have remained in 4-H for an extended period of time, and since prior research indicated that belonging was extremely important to set the stage for a positive experience in 4-H. When correlated with the other factors investigated in this study, the factor with the highest correlation with perceived sense of belonging was the factor of interaction with a caring adult.

This study helped clarify why participants remained in 4-H, and helped quantify their strong perceived sense of belonging in the organization. It is hoped 4-H professionals can utilize these data to provide more opportunities for older youth, and to retain a larger percentage of middle- and high-school youth in the 4-H program. It is also hoped future researchers will replicate this study with other 4-H audiences, and compare results from 4-H members to those from other youth-serving organizations.

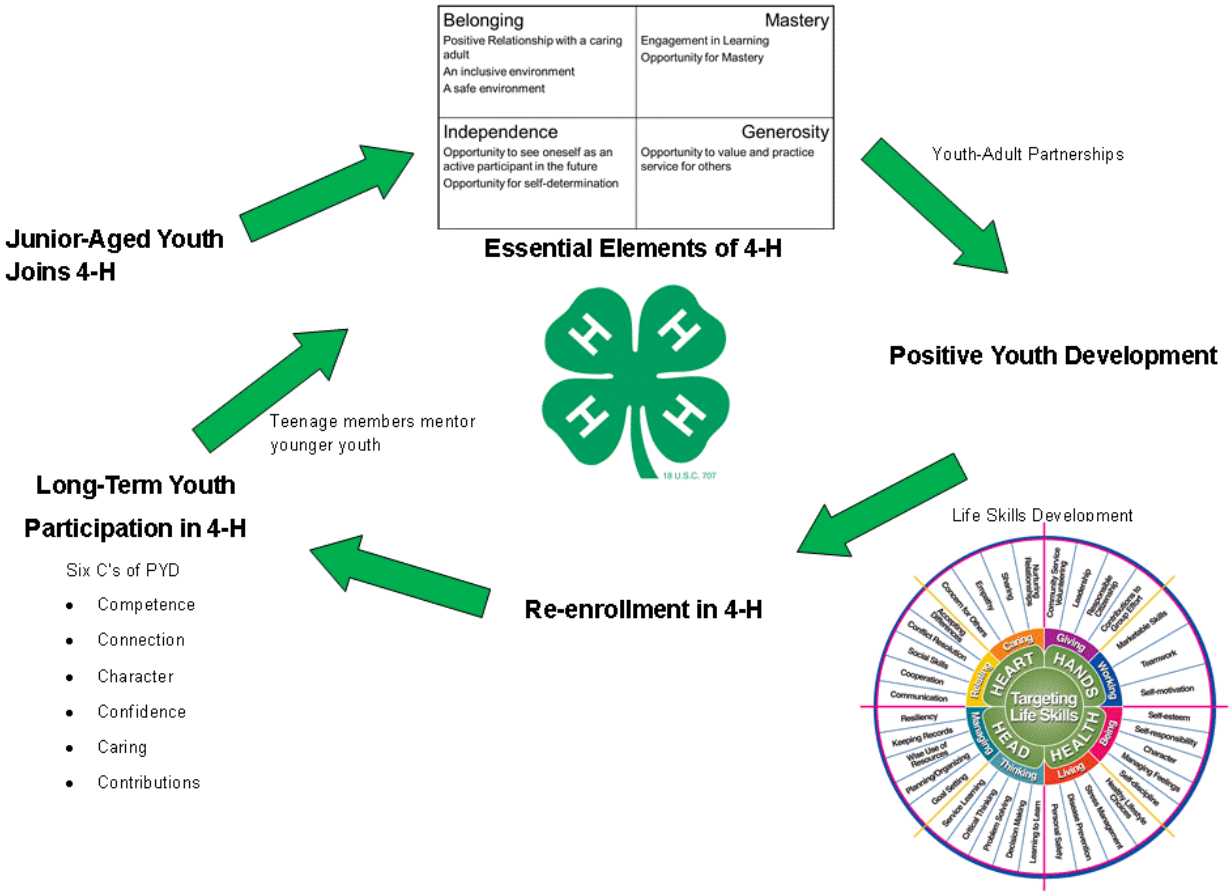

Figure 5-1. Conceptual Framework.

APPENDIX A
PSSM INSTRUMENT

Outcome Category 5: Positive Youth/School Connection

1. Psychological Sense of School Membership (Goodenow, 1993)

Description: This scale was designed to measure youths' perceptions of belonging and psychological engagement in school.

Ages: 12-18 (Grades 6-12). *Reliability:*

Alpha score is .88. *Number of Items:* 18.

Scoring Procedures: Responses are in a 5-point Likert scale format, ranging from 1= Not at all true to 5 = Completely true. Reverse scoring is necessary. Items 3, 6, 9,12, and 16 are reverse coded. The scores are then summed into a total score.

Permission: Not required for use of this scale

Circle the answer for each statement that is most true for you.

1) I feel like a part of my school.	Not at all true 1	2	3	4	Completely true 5
2) People at my school notice when I am good at something.	Not at all true 1	2	3	4	Completely true 5
3) It is hard for people like me to be accepted at my school.	Not at all true 1	2	3	4	Completely true 5
4) Other students in my school take my opinions seriously.	Not at all true 1	2	3	4	Completely true 5
5) Most teachers at my school are interested in me.	Not at all true 1	2	3	4	Completely true 5
6) Sometimes I feel as if I don't belong in my school.	Not at all true 1	2	3	4	Completely true 5
7) There is at least one teacher or adult I can talk to in my school if I have a problem.	Not at all true 1	2	3	4	Completely true 5
8) People at my school are friendly to me.	Not at all true 1	2	3	4	Completely true 5
9) Teachers here are not interested in people like me.	Not at all true 1	2	3	4	Completely true 5
10) I am included in lots of activities at my school.	Not at all true 1	2	3	4	Completely true 5
11) I am treated with as much respect as other students in my school.	Not at all true 1	2	3	4	Completely true 5
12) I feel very different from most other students at my school.	Not at all true 1	2	3	4	Completely true 5
13) I can really be myself at my school.	Not at all true 1	2	3	4	Completely true 5
14) Teachers at my school respect me.	Not at all true 1	2	3	4	Completely true 5
15) People at my school know that I can do good work.	Not at all true 1	2	3	4	Completely true 5
16) I wish I were in a different school.	Not at all true 1	2	3	4	Completely true 5
17) I feel proud to belong to my school.	Not at all true 1	2	3	4	Completely true 5
18) Other students at my school like me the way that I am.	Not at all true 1	2	3	4	Completely true 5

Psychometrics:

Information on reliability and validity are provided below. If information on a particular psychometric was not found, it is indicated as "no information provided." It should be noted that this is not necessarily an indication of a lack of reliability or validity within a particular scale/instrument, but rather a lack of rigorous testing, for various reasons, by the developers or other researchers.

Reliability: *A correlation of at least .80 is suggested for at least one type of reliability as evidence; however, standards range from .5 to .9 depending on the intended use and context for the instrument.*

Internal Consistency: Cronbach alpha=.77 to

.88 **Inter-rater reliability:** No information provided

Test-Retest: No information provided

Validity: The extent to which a measure captures what it is intended to measure.

Content/Face Validity: No information provided

Criterion Validity: No information provided

Construct Validity: The quality of psychological membership in school was significantly correlated with self-reported school motivation, grades, and teacher-rated effort.

APPENDIX B
IRB APPROVAL

UF | Institutional Review Board
UNIVERSITY of FLORIDA

Behavioral/Non-Medical Institutional Review Board
FWA00005790

PO Box 112250
Gainesville FL 32611-2250
Telephone: (352) 392-0433
Facsimile: (352) 392-9234
Email: irb2@ufl.edu

DATE: 9/5/2017

TO: Christopher Decubellis
2142 Shealy Drive
Gainesville, Florida 32611-1926

FROM: Ira Fischler, Ph.D., Professor Emeritus
Chair IRB-02

IRB#: **IRB201700425**

TITLE: FACTORS THAT INFLUENCE MIDDLE AND HIGH SCHOOL STUDENT PARTICIPATION IN 4-H CLUBS

Approved as Exempt

You have received IRB approval to conduct the above-listed research project. Approval of this project was granted on 9/5/2017 by IRB-02. This study is approved as exempt because it poses minimal risk and is approved under the following exempt category/categories:

2. Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey or interview procedures, or the observation of public behavior, so long as confidentiality is maintained. If both of the following are true, exempt status can not be granted: (a) Information obtained is recorded in such a manner that the subject can be identified, directly or through identifiers linked to the subject, and (b) Subject's responses, if known outside the research, could reasonably place the subject at risk of criminal or civil liability or be damaging to the subject's financial standing or employability or reputation.

Special Notes to Investigator:

In the myIRB system, exempt approved studies will not have an approval stamp on the consents, fliers, emails, etc. However, the documents reviewed are the ones to be used. Therefore, under ATTACHMENTS you should find the document that has been reviewed and approved. If you need to modify the document(s) in any manner then you'd need to submit to our office for review and approval prior to implementation.

Principal Investigator Responsibilities:

The PI is responsible for the conduct of the study.

- Using currently approved consent form to enroll subjects (if applicable)
- Renewing your study before expiration
- Obtaining approval for revisions before implementation
- Reporting Adverse Events
- Retention of Research Records
- Obtaining approval to conduct research at the VA
- Notifying other parties about this project's approval status

Should the nature of the study change or you need to revise the protocol in any manner please contact this office prior to implementation.

Study Team:

R Kirby Barrick Other

The Foundation for The Gator Nation
An Equal Opportunity Institution
Confidentiality Notice: This e-mail message, including any attachments, is for the sole use of the intended recipient(s), and may contain legally privileged or confidential information. Any other distribution, copying, or disclosure is strictly prohibited. If you are not the intended recipient, please notify the sender and destroy this message immediately. Unauthorized access to confidential information is subject to federal and state laws and could result in personal liability, fines, and imprisonment. Thank you.

APPENDIX C
LETTER TO PARENTS

October 19, 2017

Dear 4-H Parents,

Thank you so much for allowing your child to participate in a survey. The purpose of this study is to identify factors that influence middle and high school youth continuing to participate in 4-H. In other words, we want to find out why older youth stay in 4-H.

This survey will last about fifteen minutes. Your child's participation in this survey is completely voluntary. Your child may skip any question they do not want to answer. Your child may withdraw from this survey at any time. We will keep your child's identity anonymous.

Once again, thank you for allowing your child to participate. We will use this information to 'make the best better' in Florida 4-H for our older youth.

Best Regards,

Chris DeCubellis

Associate State 4-H Program Leader

UF/IFAS Extension

APPENDIX D
LETTER TO PARTICIPANTS

October 19, 2017

Dear 4-H Club member,

Thank you so much for participating in this survey. The purpose of this study is to identify factors that influence middle and high school youth continuing to participate in 4-H. In other words, we want to find out why older youth stay in 4-H. After conducting these surveys, we will use this information to determine why older youth continue to participate in 4-H.

This survey will take about 15 minutes to complete. Your participation in this survey is completely voluntary. There are no anticipated risks, compensation or other direct benefit to you as a participant in this survey. You may skip any question you do not want to answer. You may withdraw from this survey at any time. We will keep your identity anonymous.

If you have any questions about this research protocol, please contact me at (352) 846-4444 or my supervisor, Dr. Michael Gutter, at (352) 392-1761. Questions or concerns about your rights as a research participant rights may be directed to the IRB02 office, University of Florida, Box 112250, Gainesville, FL 32611; (352) 392-0433.

Once again, thank you for participating. We will use this information to 'make the best better' in Florida 4-H.

Best Regards,

Christopher DeCubellis

Associate State 4-H Program Leader

UF/IFAS Extension

APPENDIX E
INSTRUMENT

Name _____ County _____ 4-H Club(s) _____

Age _____ Email _____

I have read the procedure described in the letter I received regarding this study. I voluntarily agree to participate in this study (please check yes or no).

Yes _____ No _____

Please Read the statement on the left, and highlight your best response on the right using the highlighter pen provided.

Statement	Completely true	Mostly true	True about half of the time	Slightly true	Not true at all
1) I feel like a part of my 4-H club.	5	4	3	2	1
2) People at my 4-H club notice when I am good at something.	5	4	3	2	1
3) It is hard for people like me to be accepted at my 4-H club.	5	4	3	2	1
4) Other club members in my 4-H club take my opinion seriously.	5	4	3	2	1
5) Most club leaders in my 4-H club take my opinions seriously.	5	4	3	2	1
6) Sometimes I feel as if I don't belong in my 4-H club.	5	4	3	2	1
7) There is at least one adult leader I can talk to in my 4-H club if I have a problem.	5	4	3	2	1
8) People at my 4-H club are friendly to me.	5	4	3	2	1
9) Adult leaders in my 4-H club are not interested in people like me.	5	4	3	2	1
10) I am included in lots of activities in my 4-H club.	5	4	3	2	1
11) I am treated with as much respect as other members in my 4-H club.	5	4	3	2	1
12) I feel very different from most other members in my 4-H club.	5	4	3	2	1
13) I can really be myself at my 4-H club.	5	4	3	2	1
14) Adults at my 4-H club respect me.	5	4	3	2	1
15) People at my 4-H club know that I can do good work.	5	4	3	2	1

16) I wish I were in a different 4-H club.	5	4	3	2	1
17) I feel proud to belong to my 4-H club.	5	4	3	2	1
18) Other members of my 4-H club like me the way that I am.	5	4	3	2	1
19) My parent/guardian wanted me to remain in 4-H.	5	4	3	2	1
20) My 4-H projects are why I remain in 4-H.	5	4	3	2	1
21) 4-H activities and events are why I remain in 4-H.	5	4	3	2	1
22) Participation in 4-H competitive events/competitions are why I remain in 4-H.	5	4	3	2	1
23) Participation in 4-H camp is why I remain in 4-H.	5	4	3	2	1
24) Interaction with friends is why I stay in 4-H.	5	4	3	2	1
25) Interaction with a caring adult (leader, 4-H agent) is why I remain in 4-H.	5	4	3	2	1

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BIOGRAPHICAL SKETCH

A native of Pasco County, Florida, Christopher DeCubellis grew up on a small family farm. The son of David and Geneva DeCubellis, Chris graduated from Gulf High School, and attended college at the University of Florida, earning a bachelor's degree in animal science, a master's degree in agricultural education and communication, and Doctor of Philosophy in agricultural education and communication. Chris has worked as a 4-H Extension Agent in Hillsborough, Marion, and Gilchrist Counties, and worked as Associate State 4-H Program Leader for three years. He currently serves as 4-H Dairy/Animal Science State Specialized Agent with the UF/IFAS Florida 4-H Youth Development Program. Chris lives with his wife, Tracy, and two children, Chandler and Hannah, on a family farm in Archer, Florida.