

FACTORS INFLUENCING THE LEADERSHIP LIFE SKILLS
OF MONTANA 4-H YOUTH

by

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ABSTRACT

Since its inception, the 4-H program has been through many transitions, and has been constantly challenged to show its benefits to youth. Additionally, funding from 4-H came from multiple supporters resulting in the need for 4-H to show reasons for support. The purpose of this study was to assess the perceptions of Montana 4-H youth related to their leadership life skills and to determine the significant factors that influenced the development of those life skills.

The population consisted of 2008 Montana 4-H Congress participants and 2007-2008 Montana 4-H Ambassadors. The survey instrument consisted of three sections: selected demographic information and 4-H participation, involvement in 4-H activities and leadership roles, and the Youth Leadership Life Skills Development Scale (YLLSDS). YLLSDS was a valid and reliable instrument developed by Seevers, Dormody and Clason (1995). Data were collected during the Montana 4-H Congress and survey was mailed to Montana 4-H Ambassadors. The data were entered into Microsoft Excel and analyzed using SPSS.

The responses to the YLLSDS with the highest means were “have good manners,” “get along with others”, and “show a responsible attitude.” Analysis revealed that Montana 4-H Ambassadors had statistically significant higher YLLSDS scores than those who had never been an Ambassador. The factors with the greatest influence on leadership life skills development were gender, 4-H Districts, and participation in the Ambassador program. Involvement in 4-H activities predicted 6.9% of the variation in YLLSDS scores and involvement in leadership roles accounted for 7.3% of the variation in YLLSDS scores.

Leadership life skills were gained through the Ambassador program, partaking in leadership roles and involvement in leadership activities. The research attested to the effectiveness of the Ambassador program. Further research was recommended to determine which activities, leadership roles and aspects of the Ambassador program were most successful at building life skills. Further research to determine the significant variation between 4-H Districts would be useful. The study supported 4-H as a successful youth organization that responsibly teaches youth leadership life skills.

CHAPTER 1

INTRODUCTION

Background and Setting

The 4-H program officially began in 1902 as a way to engage rural youth and teach them valuable skills to use on the farm. Initially, 4-H was an agricultural and home economics based organization aimed at getting young boys and girls to stay in agriculture and rural areas and to supplement the rural education systems. Since that time, 4-H has grown and adapted to the changing demographics and societal needs. (Wessel, T. & Wessel M., 1982)

The 4-H organization expanded far beyond the original mission and became an organization aimed at providing youth with essential life skills. According to the National 4-H Council (2007), 4-H enrollment exceeded 6.5 million youth nationally. According to membership records, 23,000 Montana youth were enrolled in 4-H in 2007 (Montana 4-H Center for Youth Development). The organization remained project based with over 200 different projects in the Montana 4-H program. Projects have expanded beyond agriculture and home economics to include photography, cowboy poetry, and rocket science, to name a few. (Montana 4-H Center, n.d.) Although 4-H remained strong in rural communities, it also held broad appeal to youth in urban areas. The organization's programs provided opportunities to improve skills in the areas of citizenship, leadership and communication. Since there were typically fewer opportunities in rural areas of Montana for youth to participate in youth development

organizations, 4-H offered opportunities to build skills outside a classroom or school setting.

The Cooperative Extension Service of the United States Department of Agriculture (USDA) historically administered the 4-H program. 4-H received public funding through federal, state and local governments. State foundations and private donations provided additional financial support. (Florida 4-H Youth Development, n.d.) Most importantly, a network of over 540,000 volunteers supported 4-H across the United States (National 4-H Council, 2007). These volunteers helped make 4-H successful.

Since support and funding for 4-H came from so many different entities, it was important to research the effectiveness of 4-H. In order to maintain or increase funding levels from both government and non-government sources, the organization needed to be accountable. The Labor Secretary's Commission on Achieving Necessary Skills (SCANS) report called for youth organizations to show evidence of training effectiveness related to youth leadership life skills (Wingenbach & Kahler, 1997). Astroth (1996) concluded that 4-H had been challenged by the *4-H in Century III* publication to demonstrate its benefits to youth.

As a result, many youth development programs, including 4-H, began evaluating the effectiveness of their leadership training (Seevers, Dormody & Clason, 1995). Seevers et al. concluded that assuming responsibility and accountability for developing youth leadership life skills assured the promise for effective leadership for the future.

Research Question

Investigating the 4-H organization's effectiveness was a step toward improving the organization. Research would allow administrators, specialists and volunteers to adapt programming in order to improve youth leadership life skills. Thus, investigating the self-perception of Montana 4-H members' leadership skills was the first step to advancing a successful leadership program. The problem to be addressed was the extent to which leadership life skills were impacted by involvement in the 4-H youth development program: What were the perceptions of Montana 4-H youth related to their leadership life skills and what factors influenced or predicted leadership life skills?

Purpose of the Study

The purpose of this study was to assess the perceptions of Montana 4-H youth related to their leadership life skills and to determine the significant factors that influenced the development of those life skills.

Objectives of the Study

To accomplish the purpose of this study, the following specific objectives were implemented:

1. Determine the selected demographics for the target population of Montana 4-H Congress participants and Montana 4-H Ambassadors;
2. Determine the self-perceived leadership life skills of the target population of Montana 4-H Congress participants and Montana 4-H Ambassadors;

3. Determine if there was a statistically significant difference between the perceived leadership skills of Montana 4-H Ambassadors and 4-H youth;
4. Identify significant factors that predicted or influenced perceived leadership life skills, by comparing demographics, 4-H participation, level of involvement, and involvement in leadership roles to perceived leadership life skills.
5. Identify significant factors that predicted or influenced levels of involvement and involvement in leadership roles, by comparing demographics, 4-H participation and leadership skills to those factors.

Limitations

The target population selected for this study was limited to those 4-H youth who attended Montana 4-H Congress during the summer of 2008 and 4-H youth who were Montana 4-H Ambassadors during the 2007-2008 4-H year, which began October 1, 2007 and ended Sept 30, 2008. This resulted in the minimum and maximum age of 4-H youth for this survey being 14-19 years.

Assumptions

The following assumptions were applied to this study:

1. All participants responded honestly regarding their leadership skill perceptions, involvement in 4-H and leadership roles.
2. 4-H youth were actually the ones completing the survey instrument.

3. The data collection instrument used in this research was a reliable means of collecting the necessary data to address the objectives of this study.

Operational Definitions

The following five operational definitions were clarified for the study:

1. 4-H: A youth organization administered by the Cooperative Extension Service with the mission of empowering youth to reach their full potential, working and learning in partnership with caring adults; the fundamental 4-H ideal of practical “learn by doing” experiences encourages youth to experiment, innovate and think independently (National 4-H Council, 2007).
2. Leadership Life Skills: Development of life skills necessary to perform leadership functions in real life; described within seven categories of 4-H programming: decision making, relationships, learning, management, understanding self, group processes and communications (Bruce, Boyd & Dooley, 2004).
3. Montana 4-H Ambassador: An official envoy, an authorized representative of the Montana 4-H program; a self motivated, enthusiastic youth leader who promotes 4-H using the skill, knowledge and leadership acquired in 4-H with fellow members, area residents, community leaders, elected officials and non 4-H youth; serves to strengthen the 4-H program

through public relations; ambassadors are chosen from each county throughout the state (Montana 4-H Center for Youth Development, 2002).

4. Montana 4-H Congress: Statewide event that provides youth an opportunity to come together on the Montana State University campus in Bozeman for four days. The purpose of the event is to provide a safe and fun learning environment to experience activities including: contests, workshops, entertainment and social events (Montana 4-H Center for Youth Development, n.d.).
5. Self-perception: An awareness of characteristics that constitute one's self (The American Heritage Dictionary of the English Language, 2007).

CHAPTER 2

REVIEW OF LITERATURE

The purpose of this chapter was to present a review of the relevant literature for this research study. This review was divided into the following sections: (1) Importance of Youth Leadership; (2) Developing Leadership Life Skills in Youth and 4-H; (3) Research in 4-H; (4) Research in FFA; (5) Self-Perception of Leadership Skills; (6) Instrument Validity and Reliability, and (7) Summary.

Importance of Youth Leadership

Leadership was defined in numerous ways. Some definitions included words commonly applied to the workplace such as supervision or authority. Most definitions of leadership reflected the assumption that leadership involved an influence process whereby intentional influence was exerted by the leader over followers (Kleon & Rinehard, 1998). However, youth leadership was defined in very different ways. In Klau, Boyd and Luckow (2006), Cathann Kress, director of youth development for the National 4-H Headquarters at the United States Department of Agriculture, defined youth leadership as “the involvement of youth in responsible, challenging action that meets genuine needs, with opportunities for planning and decision making” (p. 51). Youth leadership was more than just leading people; it incorporated developing the whole person and developing life skills that youth would continue to use into adulthood. In 4-H, leadership life skills were categorized into seven subsets: decision making, relationships, learning, management, understanding self, group processes and communications (Bruce,

Boyd & Dooley, 2004). Developing leadership life skills that youth continued to use into adulthood was especially important in a society where much focus was placed on youth development.

Some professionals pointed toward the statistics of youth in negative high risk activities to recommend improving youth programming that supported leadership life skills (Boyd, Herring & Briers, 1992). Others indicated the youth-at-risk statistics were overstated and recommended that Extension move away from a model which focused solely on youth problems to a model that supported basic vitality and strength in all young people (Astroth, 1993). Regardless of the chosen model, the solution tended to be the same and was recommended by both researchers to develop life skills in youth to ultimately improve society.

Boyd et al. (1992) stated “development of life skills allows youth to cope with their environment by making responsible decisions, having a better understanding of their values and being better able to communicate and get along with others.” This was a good analysis of the scope of leadership life skills, but it only touched on the full scope of those life skills in 4-H.

Developing Leadership Life Skills in Youth and 4-H

Breaking down the concept of leadership life skills further, a skill was a learned ability and life skills were those competencies that assisted people to function well in their natural environments (Norman & Jordan, n.d.). Developing programs that encouraged the development of youth leadership and leadership life skills was a continual

challenge. Wendy Wheeler (Klau et al., 2006) suggested the following five strategies for success of building youth leadership:

- Build young people's connections to their own identity, culture and community.
- Recognize that young people are assets to and experts about their own communities.
- Engage young people as community leaders on issues that matter to them
- Create developmental opportunities that are sustained and supported over time.
- Bring young people and adults together to work as equal partners. (p. 90)

4-H encompassed these five strategies by encouraging understanding of self, building opportunities for service learning in communities, allowing participation and creation of clubs and groups that supported the community, creating opportunities for youth to engage in hands-on learning and leadership opportunities, and working to build youth-adult partnerships.

Additionally, 4-H strived to create programs that optimized youth development needs and created an environment to develop leadership life skills. Cathann Kress (Klau et al., 2006) wrote concerning the optimal environment for youth:

To be effective, youth leadership efforts must focus on creating environments in which youth matter and are part of a supportive group that know them well enough to recognize the optimal zone where they can achieve more only with help from other people—environments where

youth skill development is encouraged through hands-on participation and by recognizing that experiences are transformed by youth who participate in them. These environments must also involve caring adults who willingly allow youth to learn from observing their actions and who engage in actions worthy of being emulated. (p. 54-55)

4-H attempted to establish this optimal environment by encouraging learning through experience and strived to surround youth with supporting and knowledgeable adult volunteers (Florida 4-H Youth Development, n.d.).

There have been studies completed to determine how youth programs developed leadership life skills. Astroth (1996) concluded, “many studies have failed to detect benefits for youth who participate in non-formal youth programs because they’ve ignored what we know about human development. ¶ 4)” Astroth suggested that some studies overlooked the critical element of leadership and group environment. Another study by Astroth (1996) in Montana assessed the leadership style of 4-H club organizational leaders and observed autonomy and leader-controlled clubs. Even though the research was on the leadership style of club leaders, members were also surveyed. The researcher found that, “4-H is quite effective at development of leadership skills in 4-H members. This pattern consistently emerged in the data, and nearly all those interviewed spoke about the way that 4-H helped them learn leadership skills” (Leadership Section, ¶ 1).

Without doubt, the United States placed a high priority on developing leadership life skills in youth. Locke (2004) contended it was essential for youth to develop leadership skills through experience. She hypothesized that the 4-H program’s service-

learning model improved leadership skills as well as understanding of the importance of service and community. Youth benefitted from the 4-H program because it typically offered a non-structured opportunity for community service versus the formal structure of service learning (Locke, 2004). Locke also noted the perceived leadership skills of 4-H youth were significantly higher than non-4-H youth. Additionally, she reported that the type of service and hours of service had a significant impact on perceived life skills.

Jennifer McClean, a 4-H alumni and past member of the California 4-H Program Advisory Committee, wrote about her 4-H experiences. She stated:

I started my involvement in 4-H believing that in order to be a leader one had to be the person in charge, directing the actions of others. I now understand that one can be a leader in much more subtle ways. My 4-H experiences and development helped me gain this new perception of leadership. (Klau, et al., 2006, p. 105)

4-H clearly made an impact on the lives of some youth.

Research in 4-H

Pressure had been placed on 4-H to show the benefits of the organization's programming on youth in America, as there was a call to provide skills necessary to carry youth forward into the adulthood. A Texas research study focused on leadership life skills differences of 4-H youth and non-4-H youth. The researchers reported that 4-H youth rated high skill development for working in groups, understanding self, communication, and decision-making but lower on the leadership scale. Non-4-H youth

perceived their skill development high on scales of understanding self and working in groups (Boyd et al., 1992). Even though 4-H youth rated themselves lower on the leadership scale, that rating was still higher than non-4-H youth.

Boyd et al. also reported the development of leadership skills showed a moderate relationship with the level of participation. All other measurement scales, such as working with groups, showed a low relationship with participation. Even though the leadership scores were low, it was believed this relationship showed that youth still benefited from 4-H.

Seevers and Dormody (1994) reported results similar to Boyd, concluding that “participation in 4-H leadership activities had a positive relationship with youth leadership life skills development” (p. 67). These researchers also concluded that achievement expectancy had a positive relationship with youth leadership life skill development, females had higher life skills development scores than males, and minorities had higher scores than non-minorities. No significant relationships were discovered between leadership life skills development and self-esteem, years in 4-H, age, or place of residence.

Another Texas study (Parrish & Igo, 2006) compared 4-H youth and non-4-H youth. The researchers concluded that 4-H youth were more helpful to friends and acquaintances; more likely to give money or time to a charity or organizations that helped people; more likely to help people who were poor, hungry, sick or unable to care for themselves; more likely to be involved in community service; and more likely to hold a leadership position. This research revealed positive ethics and citizenship among 4-H

youth. The researchers also concluded that 4-H youth believed they had more control over their lives and had positive attitudes towards adults in their community. This research showed the positive impact that 4-H can have on youth, however it did not make clear how or if 4-H influenced leadership life skill development in the seven categories delineated by Bruce, et al (2004).

Astroth & Haynes (2002) compared the likelihood of participation in high risk activities of 4-H youth and non-4-H youth. The researchers reported that 4-H youth were less likely to shoplift, use drugs, damage property, and smoke cigarettes. Furthermore, those 4-H youth were more likely to do well in school. A similar study in Idaho also revealed that 4-H youth were less likely to participate in high-risk activities (Goodwin, Barnett, Pike, Peutz, Lanting & Ward, 2005). While both studies provided evidence of the 4-H program's positive impact on youth, neither related to all of the categories of leadership life skills identified by Bruce, et. al. (2004).

Wingard (1996) examined 4-H camps in Montana to determine whether the camps fostered life skill development. She concluded the camps assisted life skills development in areas including acquiring a concern for communities; relating to self and others; developing an inquiring mind; decision-making; responsibility, and positive self-concept. 4-H camps were one of many 4-H activities that thousands of members across the United States participate in each year. It was one piece to the puzzle of understanding how 4-H activities influenced leadership life skill development.

Bradbury (2005) assessed the effectiveness of a leadership training program for club leaders in Montana. The researcher concluded that 4-H positively affects members'

confidence regardless of whether leaders participated in the Volunteer Leaders College, and that a majority of members perceived their life skill abilities as either high or very high. The importance of the Bradbury study to this research was not the leader training, but the perceptions of the members. The Bradbury study revealed that 4-H positively affected confidence and life skills, regardless of leader training. However, the overall self-perception of leadership skills of Montana 4-H youth was still in question.

Research in FFA

Several published studies related to FFA members and the self-perception of leadership skills related to this study. FFA proponents contended that involvement in FFA and agriculture education resulted in prepared future leaders, and several studies supported that statement.

Ricketts and Rudd (2004) studied former state FFA officers and reported the two most influential factors attributed to perceived leadership skills were the agricultural education program and FFA, followed by the community. The researchers also reported individual items that contributed to leadership development, including positive involvement in 4-H activities. Interestingly, the mean response for that particular question on 4-H activities was 2.62 on a 7-point Likert-type scale. The 4-H involvement response ranked third from last in order of most important contributing factors. However, the standard deviation for that response was 2.21, the highest standard deviation of all the responses in the questionnaire (Ricketts & Rudd, 2004).

Dormody and Seevers (1994) found that achievement expectancy had a positive relationship with youth leadership life skills development among FFA members in a tri-state study of Arizona, Colorado and New Mexico. These researchers reported a weak positive relationship between participation in FFA leadership activities and leadership life skills development. Contrasted with the 1994 Seevers and Dormody study of 4-H youth, this finding was quite different. Seevers and Dormody reported a strong positive relationship between participation in 4-H leadership activities and leadership life skills development. Both the 4-H and FFA study used the same data collection instrument, but the results were quite different between the organizations.

Wingenbach and Kahler (1997) conducted a study with Iowa FFA members measuring their self-perception of youth leadership. These researchers used the same instrument, the Youth Leadership and Life Skill Development Scale (YLLSDS), created by Severs et al. (1995) and used in the 4-H and FFA studies conducted by Seevers and Dormody and Dormody and Seevers, respectively. Wingenbach & Kahler discovered a very strong relationship between YLLSDS scores and FFA leadership activities for the Iowa population, unlike the study by Dormody and Severs (1994) conducted in the tri-state study.

A nationwide FFA study conducted by Rutherford, Townsend, Briers, Cummins, and Conrad (2002) addressed the relationship between the self-perceived leadership skills of the Washington Leadership Conference participants and their chapter size, tenure of membership, level of involvement, and officer position, if applicable. The researchers

concluded that as the level of involvement and the chapter sized increased, so did students perceived leadership abilities.

Wingenbach & Kahler (1997) reported “the construct of youth leadership and life skills development is a complex arrangement of experiences, background and attitudes, when measured by the perceptions of secondary agriculture education students” (p. 25). With the conflicting conclusions, there was no ready agreement on the key relationships that create leadership life skills.

Self-Perception of Leadership Skills

Several related studies were reviewed that examined self-perception of leadership skills, although not conducted with youth. The purpose of looking at such research was to analyze the methodology and the results as they related to youth leadership programs.

Rotter (2004) examined the self-perceived leadership skills of college sophomore student leaders who enrolled in an undergraduate collegiate leadership course, assessing their perceptions before and after the course was completed. Additionally, he examined the sample’s perceptions of high school activities and whether students had taken high school leadership courses. Rotter reported no significant relationships between the attitudes of sophomore leaders with the amount of high school leadership courses that were completed. The study did not address whether the students were in 4-H or FFA.

Thorp, Cummins, and Townsend (1998) assessed women’s self-perception of leadership skills in a collegiate agriculture course. Unlike the Rotter study, Thorp, et al

discovered a significant relationship between high school leadership courses and leadership perception.

Neither study defined high school leadership courses. These courses could have been formal in-school courses or they could have been in a non-formal setting, such as 4-H or FFA. Neither study included demographics to determine the students' involvement in 4-H, FFA or other organizations where leadership traditionally was stressed.

Instrument Validity and Reliability

Utilizing an instrument that was both valid and reliable was essential. Validity was the extent to which the instrument measured what it was supposed to measure. Reliability referred to the consistency of an instrument to gain similar results with each use (Leedy & Ormrod, 2005).

We can measure something accurately only when we can also measure it consistently. Yet measuring something consistently doesn't necessarily mean measuring it accurately. In other words, reliability is a necessary but insufficient condition for validity. (Leedy & Ormrod, 2005, 28-29)

Seevers et al. (1995) purposed to "develop a valid and reliable scale to measure youth leadership life skills development" (p. 29). The Seevers team used a panel of experts to develop an instrument with sixty indicators. The indicators were developed from other published research instruments. The new instrument was tested for validity and reliability on a group of 4-H and FFA members. During construct validity assessment, the instrument was pared down through item analysis, internal structure

relationship and cross-structure relationships to only thirty indicators. The results were a Cronbach's alpha reliability coefficient of 0.98 (Seevers et al., 1995). Smith, Genry and Ketring (2005) used the same instrument for their study and reported a Cronbach's alpha reliability coefficient of 0.89. This instrument became known as the Youth Leadership Life Skills Development Scale (YLLSDS), and was used in several of the previously reported studies.

Guion and Rivera (2006) conducted a similar study at the University of Florida. The researchers used similar methodologies to develop the Life Skills Improvement Scale. This was a nineteen item self rating instrument that yielded a Cronbach's alpha reliability coefficient of 0.88.

Summary of Literature Review

Youth leadership was an important aspect of youth development. Youth leadership allowed the creation of life skills to carry forward into adulthood. These skills included, but were not limited to, decision making, communication and understanding self. Through numerous studies, researchers have examined the best ways to develop those skills and to create a supportive environment for youth. Consensus suggested the ideal environment includes supportive adults, hands-on learning and experiential learning.

Research also showed that 4-H youth consistently rated themselves higher on leadership life skills scales than non-4-H youth. Although there was some discrepancy in the ratings of 4-H youth on leadership scales, the ratings were generally higher than for

non-4-H youth. Other studies revealed that 4-H had a positive effect on youth and decreased their participation in high risk activities. Furthermore, there was evidence that 4-H camps fostered life skill development.

Various researchers have done considerable research on FFA members' self-perception of leadership skills. The studies consistently revealed that FFA and agricultural education involvement was making a difference and there was a high leadership skills perception. There was conflicting data with 4-H studies. However, results of studies using 4-H or FFA members were not easily compared since the two organizations differed in their goals and missions. Both had the potential to improve leadership life skills in youth.

Studies of leadership self-perception in college-aged students have had mixed results. Some researchers concluded that high school leadership education strongly correlated to self-perception of leadership at the college age, while other studies found no relationship.

Education is not a process of filling up learners with new information; it is a process of creating conditions that support learners in making discoveries themselves, then putting those discoveries to use. The same holds true for learning leadership. ... there is a significant difference between learning about leadership and learning leadership. Learning leadership happens experientially, through involvement in opportunities to practice the skills, experiment with approaches, and try on the roles.

Carole A. MacNeil in Klau et al. (2006)

An understanding of 4-H youth perceived leadership life skills was important for both state and national 4-H program leaders. Assessment of those leadership life skills needed to be both comprehensive and ongoing. The 4-H organization must present accurate information about the positive impact on young people. That information should be based on measurable outcomes that can be used to promote the 4-H program to prospective members, parents, and financial supporters.

CHAPTER 3

METHODOLOGY

This chapter described the methods and procedures used in developing and conducting this research study. The purpose of the study was to assess the perceptions of Montana 4-H youth related to their leadership life skills and to determine the significant factors that influenced the development of those life skills. The research design consisted of quantitative descriptive survey research. Leedy and Ormrod (2005) stated, “survey research involves acquiring information about one or more groups of people – perhaps about their characteristics, opinions, attitudes, or previous experiences – by asking them questions and tabulating their answers” (p. 183). The purpose and objectives of this research were consistent with those design parameters.

Objectives of the Study

To accomplish the purpose of this study, the following specific objectives were implemented:

1. Determine the selected demographics for the target population of Montana 4-H Congress participants and Montana 4-H Ambassadors;
2. Determine the self-perceived leadership life skills of the target population of Montana 4-H Congress participants and Montana 4-H Ambassadors;
3. Determine if there was a statistically significant difference between the perceived leadership skills of Montana 4-H Ambassadors and 4-H youth;

4. Identify significant factors that predict or influence perceived leadership life skills, by comparing demographics, 4-H participation, level of involvement, and involvement in leadership roles to perceived leadership life skills.
5. Identify significant factors that predict or influence levels of involvement and involvement in leadership roles, by comparing demographics, 4-H participation and leadership skills to those factors.

Institutional Review Board

Federal regulations and Montana State University policy require review and approval of all research studies involving human subjects before investigators can begin their research. The Institutional Review Board (IRB) at Montana State University conducted such reviews to ensure the rights and welfare of human subjects involved in biomedical and behavioral research were protected. In compliance with these policies, this study received proper review and was granted permission to proceed. The IRB approval form was included here as Appendix A.

Subject Selection

The target population for this study included two segments. The first was active 4-H youth who attended Montana 4-H Congress in 2008. The second segment was Montana 4-H Ambassadors from the 2007-2008 4-H year.

4-H youth who attended the 2008 Montana 4-H Congress were representative of 4-H members across the state. General requirements for attending Montana 4-H

Congress included active participation in a local 4-H club, an application to attend Congress, and selection by the 4-H leaders in the respective county. Additionally, many participants were selected to represent the county or club in a competitive event.

County 4-H program leaders also had the responsibility to select the 4-H Ambassadors. Most Montana counties had at least two 4-H Ambassadors, a junior and a senior, selected based on leadership skill and level of 4-H involvement.

Instrumentation

A survey instrument was used to elicit the necessary data from the respondents and consisted of three sections. The first part of the survey consisted of general demographic questions including gender, age, ethnicity, place of residence, and school type. Additionally, the first section included questions related to participation in 4-H including 4-H district, years in 4-H, 4-H involvement in other states, and involvement in the Ambassador program.

The second section consisted of two in-depth questions to ascertain the level of involvement in 4-H activities and involvement in 4-H leadership roles. To determine level of involvement in 4-H activities, respondents indicated the number of hours spent in 4-H activities at various levels as well as the state, regional, national, and international activities in which they had participated. Information on leadership roles was collected by asking participants to indicate the number of roles participated in at the club, county and state levels.

The third section of the instrument was the Youth Leadership Life Skills Development Scale (YLLSDS), developed by Dormondy, Seevers and Clason (1995) and used in this research by permission of the developers. YLLSDS utilized a 4-point Likert-type scale ranging from one, representing no gain, to four, representing a lot of gain, to evaluate the leadership life skills of 4-H youth. The instrument used was included in Appendix B.

The instrument had been tested for reliability by the developers in 1995 (Cronbach's Alpha = 0.98) and again in 2005 by Smith, Genry and Ketring (Cronbach's Alpha = 0.89). The researcher chose to again test the instrument's internal consistency reliability due to the addition of the prescribed demographic questions. The researcher conducted a pilot test in June 2008 with the 2008-2009 Montana FFA State Officers (n = 6). The pilot test yielded a Cronbach's Alpha reliability coefficient of 0.985. Nunnally (1978) indicated that a coefficient 0.7 or greater was acceptable. The higher the score the more reliable the generated scale (Santos, 1999).

Data Collection

The Montana 4-H Center for Youth Development assisted the researcher in organizing data collection. The instrument, consent letter and survey explanation were distributed before the opening ceremony at the 2008 Montana 4-H Congress. Informed consent letters with signatures and the completed surveys were collected after the ceremony. Since not all Congress participants had time to complete the survey during the opening ceremony, the researcher administered surveys during the remainder of the event

to participants who had not completed the questionnaire at the opening ceremony. After 4-H Congress, the researcher compared the participant roster to the Ambassador list, and those Ambassadors who had not attended 4-H Congress were mailed a survey.

Data Analysis

Survey data were compiled and entered into Microsoft Excel™. Microsoft Excel™ was also used to compute two of the three involvement and leadership scores. The researcher hand-computed the third score then entered it into the Excel spreadsheet.

The main dependent variable was perceived leadership life skills as assessed by the Youth Leadership Life Skills Scale (YLLSDS). Level of involvement and involvement in leadership roles also served as dependent variables for objective five. The independent variables included years in 4-H, age, ethnicity, gender, place of residence, type of school, 4-H District, involvement in leadership roles and level of involvement in 4-H activities.

The researcher uploaded the data files into the Statistical Package for Social Sciences (SPSS) for analysis. Descriptive statistics and/or frequencies were computed for each question within all sections of the instrument. Various statistical analyses were used to determine relationships between variables. An independent samples t-test compared scores with gender and Ambassador program participation. Pearson's product-moment correlations compared level of involvement score and involvement in leadership roles score to age, years in 4-H and the two scores with one another. A One-Way Analysis of Variance (ANOVA) compared the three involvement and leadership scores

with location, school type and 4-H District. Tukey post-hoc tests were used when significance was found from ANOVA comparisons. Finally, a Mann-Whitney *U* test compared YLLSDS scores with age and years in 4-H.

CHAPTER 4

RESULTS

Introduction

The purpose of the study was to assess the perceptions of Montana 4-H youth related to their leadership life skills and to determine the significant factors that influenced the development of those life skills. Following data collection and analysis, the researcher organized the data to address the purpose and objectives of the research study. The section was first organized by the descriptive statistics and/or frequencies of demographic results, 4-H participation, involvement in 4-H activities, 4-H leadership roles and Youth Leadership Life Skills Development Scale (YLLSDS). Next were the results of the statistical tests organized by demographics influencing involvement, roles and skills development, participation in 4-H influencing involvement, roles and skills development, and level of involvement and involvement in leadership roles influencing leadership skills development.

Data Collection

Of 344 Congress participants, 155 responded to the survey for a response rate of 45.1%. A total of 33 additional Ambassadors were contacted after 4-H Congress and invited to participate in the study. Eighteen replied for a response rate of 54.5%.

Demographic Results

Demographic characteristics used for this study consisted of gender, age, ethnicity, place of residence, school type, and 4-H District.

Gender

Of the respondents who indicated gender 62% (n = 106) were female and 38% (n = 66) were male. One respondent did not report gender.

Age

Age ranged from 14 to 19 years with a mean of 16.2 years (SD = 1.20). The median age was 16.0 and the mode was also 16. The age distribution of respondents was shown in Table 1.

Table 1.
Age Distribution of Respondents

Age*	n	%
14	10	5.8
15	44	25.4
16	53	30.6
17	37	21.4
18	24	13.9
19	4	2.3
No Response	1	0.6
Total	173	100.0

* M = 16.2 years, SD = 1.20 years.

Ethnicity

An overwhelming majority, 95.4% (n = 165) were White, not of Hispanic origin. There was also one respondent (0.6%) in each category of American Indian or Alaskan Native, Hispanic, and Asian or Pacific Islander. Table 2 showed the ethnicity distribution.

Table 2.
Ethnicity of Respondents

Ethnicity	n	%
White (Not of Hispanic Origin)	165	95.4
American Indian or Alaskan Native	1	.6
Hispanic	1	.6
Asian or Pacific Islander	1	.6
No Response	5	2.9
Total	173	100.0

Place of Residence

Table 3 detailed the distribution of place of residence. Sixty percent of respondents lived on a farm or ranch and 22% lived in a rural community with a population of less than 2,500. When asked if they had resided in another state besides Montana during their lives, 18.5% (n = 32) indicated they had.

Table 3.
Place of Residence of Respondents

Location	n	%
Farm or Ranch	104	60.1
Rural Community (population less than 2,500)	38	22.0
Urbanized Area (population 2,500 – 20,000)	14	8.1
Urban Area (population greater than 20,000)	9	5.2
No Response	8	4.6
Total	173	100.0

School Type

A majority (82.7%) of respondents attended public schools and 13.3% indicated they were home schooled. Table 4 showcased the responses to reported school type.

Table 4.
School Type of Respondents

School Type	n	%
Public School	143	82.7
Private School	5	2.9
Home School	23	13.3
No Response	2	1.2
Total	173	100.0

4-H District

The Montana 4-H Center for Youth Development divided the state into eight separate 4-H Districts, as shown in Figure 1. The largest percentage (22.5%) of respondents reported residing with District 3 (n = 39). The least represented District in the study was District 7 with 5.8% (n = 10) respondents. Table 5 illustrated the distribution of respondents in their respective Districts.

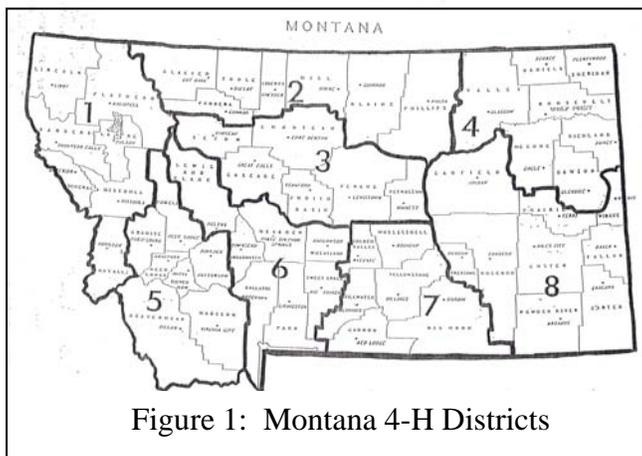


Figure 1: Montana 4-H Districts

Table 5.
Distribution of District of Respondents

District	n	%
1	19	11.0
2	13	7.5
3	39	22.5
4	27	15.6
5	22	12.7
6	18	10.4
7	10	5.8
8	25	14.5
Total	173	100.0

4-H Participation

To determine factors influencing the leadership life skills development in 4-H youth, respondents were queried about their type of 4-H participation. Participation was categorized into three areas: (1) years in 4-H, (2) participation in other states, and (3) participation in the Montana Ambassador program.

Years in 4-H

The average number of years respondents had been enrolled in 4-H, not including Cloverbuds, was 7.35 years ($SD = 1.83$). The median and mode for the question were both 7.0. Almost 10% of respondents had been in 4-H ten years or more. Table 6 showed the distribution of years enrolled in 4-H.

Table 6.
Years Enrolled in 4-H (Not Including Cloverbuds) of Respondents

Years in 4-H*	n	%
1	2	1.2
2	1	.6
3	1	.6
4	6	3.5
5	11	6.4
6	28	16.2
7	42	24.3
8	32	18.5
9	30	17.3
10	11	6.4
11	6	3.5
No Response	3	1.7
Total	173	100.0

* M = 7.35, SD = 1.83

4-H Participation in Other States

Thirty two respondents (18.5%) reported having lived in a state other than Montana in their lives. However, only 5.2% (n = 9) had been involved in 4-H in another state.

Ambassador Program

Respondents were asked to indicate if they had previously participated or were currently involved in the Ambassador program. Thirty-one percent (n = 54) indicated they had been or currently were Ambassadors; 66% (n = 114) had not been Ambassadors. Three percent did not respond to the query.

Involvement in 4-H Activities

To determine the 4-H involvement, the researcher tabulated the reported hours spent in 4-H activities and the reported number of activities attended. The researcher then developed a 4-H involvement score from that information.

Hours Spent in 4-H Activities

Respondents ranked their level of 4-H involvement in activities, such as meetings, competitions, fairs, workshops, conferences, community service activities and camps, by indicating the number of hours per month spent in those activities at the club, county and state level. A priori, the researcher determined 0-2 hours per month indicated minimal involvement at a respective level, while eight hours or more per month indicated heavy involvement at a particular level. Table 7 delineated the number of hours respondents spent in 4-H activities at all levels. Within the club level, the largest percentage (31.8%) of respondents spent 3-5 hours per month in 4-H activities. At the county level, the largest percentage (31.2%) spent over 8 hours per month in 4-H activities. At the state level, the majority (53.2%) spent 0-2 hours per month in 4-H activities.

Table 7.
Number of Hours Involved in 4-H Activities of Respondents

Involvement	Club		County		State	
	n	%	n	%	n	%
0-2 hours/month	26	15.0	28	16.2	92	53.2
3-5 hours/month	55	31.8	50	28.9	38	22.0
6-8 hours/month	41	23.7	33	19.1	14	8.1
Over 8 hours/month	44	25.4	54	31.2	20	11.6
No Response	7	4.0	8	4.6	9	5.2
Total	173	100.0	173	100.0	173	100.0

Level of Involvement Score

Each respondent was scored on their level of involvement in 4-H activities. The score was a combination of the number of hours in 4-H activities as well as the results from the activity(s) in which the youth had participated. Participants were given a list of 4-H activities categorized by state, regional, national and international levels, and asked to report all activities in which they had participated. The researcher, in consultation with the Volunteer and Leadership Specialist in the Montana 4-H Center for Youth Development, developed the scoring system; based on degree of participation required, type of activity, intensity, and qualifications to attend the event. Table 8 summarized the scoring system used for each involvement level or activity to develop the Level of Involvement Score (LIS).

Table 8.
Scoring System for Level of Involvement Score

Involvement Level or Activity	Score
0-2 hours/month at the Club, County or State Level	1
Montana 4-H Rec Lab	1
Montana Range Days	1
MSU Ag Days	1
Montana State 4-H Horse Show	1
Montana State Fair	1
Montana 4-H Legislative Breakfast	1
Other Montana Event(s)	1
3-5 hours/month at the Club, County or State Level	2
Montana 4-H Congress	2
Montana 4-H Pre-Congress	2
Ambassador Fall Training	2
Montana Citizenship Seminar	2
Montana 4-H Leadership Forum	2

Table 8 (continued).

Involvement Level or Activity	Score
Western District Leaders Forum	2
Other District Event(s)	2
Citizenship Washington Focus	2
Other National Event(s)	2
6-8 hours/month at the Club, County or State Level	3
Western 4-H Roundup	3
National 4-H Congress	3
National 4-H Conference	3
International Participation	3
Over 8 hours/month at the Club, County, or State Level	4

The minimum possible score was three while the maximum possible score was 49. Respondent's scores ranged from 3 to 27. The mean score was 11.7 (SD = 4.82). The median score was 11.0 and the mode was 11. Table 9 showed the distribution of LIS.

Table 9.
Distribution of 4-H Level of Involvement Scores of Respondents

Score*	n	%
0-5	7	4.0
6-10	71	41.0
11-15	55	31.8
16-20	25	14.5
21-25	10	5.8
26-30	1	0.6
No Response	4	2.3
Total	173	100.0

*M = 11.7, SD = 4.82

4-H Leadership Roles

4-H leadership roles were summarized in two different manners. The first was the number of leadership roles and the second was a score.

Number of Leadership Roles

Respondents ranked their level of 4-H involvement in leadership roles from October 2006 through June 2008 by indicating the number of leadership roles they had undertaken. Examples of leadership roles included club or county officer positions, county or state Ambassador, club or county committee chairs and committee involvement at the county or state levels. Table 10 detailed the number of roles respondents were involved in at each respective level. At the club (39.9%), county (62.4%), and state (83.8%) levels the most reported response was 0-2 roles since October 2006.

Table 10.
Number of Leadership Roles of Respondents

Involvement	Club		County		State	
	n	%	n	%	n	%
0-2 Roles	69	39.9	108	62.4	145	83.8
3-5 Roles	61	35.3	34	19.7	13	7.5
6-8 Roles	25	14.5	14	8.1	1	.6
Over 8 Roles	11	6.4	8	4.6	2	1.2
No Response	7	4.0	9	5.2	12	6.9
Total	173	100.0	173	100.0	173	100.0

Involvement in Leadership Roles Score

The researcher, again in consultation with the Volunteer and Leadership Specialist in the Montana 4-H Center for Youth Development, developed a means of

scoring the respondents' involvement in leadership roles. For each level, respondents received one point for 0-2 roles, two points for 3-5 roles, three points for 6-8 roles and four points for over eight roles for the Involvement in Leadership Roles Score (ILRS). This scale was designed to yield a score between three and twelve points. However, due to incomplete answers the actual range was one to ten. Table 11 focused attention on respondents' ILRS. The mean score was 4.39 (SD = 1.76). The median score was 4.0 and the mode was 3.

Table 11.
Involvement in Leadership Roles Scores of Respondents

Score*	n	%
0-2	6	3.5
3-4	98	56.7
5-6	42	24.3
7-8	17	9.8
9-10	5	2.9
No Response	5	2.9
Total	173	100.0

* M = 4.39, SD = 1.756

Youth Leadership Life Skills Development Scale

The final section of the survey was the Youth Leadership Life Skills Development Scale (YLLSDS) which gauged participants' perceptions of leadership life skills gained through 4-H. Respondents answered the question, "What leadership skills have you improved because of your 4-H involvement?", and ranked their response to thirty leadership life skills on a four-point Likert-type scale (1 representing no gain and 4 representing a lot of gain).

Frequency of Responses to the YLLSDS

Table 12 provided the response frequencies to the YLLSDS. The responses with the highest mean values were “have good manners”, “get along with others”, “show a responsible attitude”, “have a friendly personality”, “respect others”, and “can handle mistakes”.

Table 12.
Frequency of Responses to YLLSDS Scale (n = 173)

Leadership Skill	No Response	No Gain (1)	Slight Gain (2)	Moderate Gain (3)	Lot of Gain (4)	Mean	SD
Have good manners	3 1.7%	10 5.8%	18 10.4%	43 24.9%	99 57.2%	3.36	0.894
Get along with others	1 .6%	5 2.9%	22 12.7%	55 31.8%	90 52.0%	3.34	0.811
Show a responsible attitude	1 .6%	4 2.3%	23 13.3%	59 34.1%	86 49.7%	3.32	0.793
Have a friendly personality	1 .6%	5 2.9%	27 15.6%	49 28.3%	91 52.6%	3.31	0.841
Respect others	2 1.2%	8 4.6%	26 15.0%	47 27.2%	90 52.0%	3.28	0.890
Can handle mistakes	4 2.3%	4 2.3%	25 14.5%	60 34.7%	80 46.2%	3.28	0.802
Consider input from all group members	2 1.2%	5 2.9%	23 13.3%	65 37.6%	78 45.1%	3.26	0.801
Can use information to solve problems	3 1.7%	5 2.9%	28 16.2%	58 33.5%	79 45.7%	3.24	0.832
Can delegate responsibility	1 .6%	8 4.6%	25 14.5%	61 35.3%	78 45.1%	3.22	0.862
Use rational thinking	3 1.7%	4 2.3%	31 17.9%	59 34.1%	76 43.9%	3.22	0.825
Can set priorities	3 1.7%	6 3.5%	24 13.9%	68 39.3%	72 41.6%	3.21	.815
Can listen effectively	1 .6%	7 4.0%	22 12.7%	71 41.0%	72 41.6%	3.21	.818

Table 12 (continued).

Leadership Skill	No Response	No Gain (1)	Slight Gain (2)	Moderate Gain (3)	Lot of Gain (4)	Mean	SD
Can be flexible	2 1.2%	6 4.6%	23 13.3%	65 37.6%	75 43.4%	3.21	0.849
Can solve problems	1 .6%	8 4.6%	28 16.2%	58 33.5%	78 45.1%	3.20	0.876
Am open to change	3 1.7%	5 2.9%	27 15.6%	67 38.7%	71 41.0%	3.20	0.811
Can set goals	3 1.7%	6 3.5%	25 14.5%	69 39.9%	70 40.5%	3.19	0.816
Recognized the worth of others	1 .6%	6 3.5%	27 15.6%	69 39.9%	70 40.5%	3.18	0.822
Am open-minded	2 1.2%	7 4.0%	29 16.8%	63 36.4%	72 41.6%	3.17	0.854
Have a positive self-concept	3 1.7%	5 2.9%	26 15.0%	76 43.9%	63 36.4%	3.16	0.787
Can clarify my values	2 1.2%	5 2.9%	30 17.3%	68 39.3%	68 39.3%	3.16	0.817
Consider the needs of others	1 .6%	5 2.9%	31 17.9%	69 39.9%	67 38.7%	3.15	0.817
Can select alternatives	2 1.2%	4 2.3%	32 18.5%	75 43.4%	60 34.7%	3.12	0.788
Can be honest with others	1 .6%	10 5.8%	29 16.8%	68 39.3%	65 37.6%	3.09	0.880
Create an atmosphere of acceptance	2 1.2%	9 5.2%	33 19.1%	65 37.6%	64 37.0%	3.08	0.881
Can be tactful	1 .6%	9 5.2%	35 20.2%	63 36.4%	65 37.6%	3.07	0.889
Can consider alternatives	2 1.2%	6 3.5%	34 19.7%	74 42.8%	57 32.9%	3.06	0.820
Am sensitive to others	2 1.2%	14 8.1%	38 22.0%	53 30.6%	66 38.2%	3.00	0.970
Can determine needs	2 1.2%	5 2.9%	35 20.2%	88 50.9%	43 24.9%	2.99	0.759
Trust other people	2 1.2%	14 8.1%	40 23.1%	62 35.8%	55 31.8%	2.92	0.939
Can express feelings	2 1.2%	15 8.7%	40 23.1%	77 44.5%	39 22.5%	2.82	0.886

YLLSDS Score

The researcher calculated YLLSDS scores for each respondent. The YLLSDS score was the sum of the respondent's leadership life skills scores minus 30. The constant of 30 represented no gain from 4-H experiences. Thus, a respondent who reported no gain (1 rating) from 4-H experiences would earn a zero score. In contrast, a respondent who reported a lot of gain (4 rating) from 4-H experiences on all indicators would receive a score of ninety.

Table 13 delineated the distribution of YLLSDS scores, which ranged from zero to ninety. The respondents' mean score was 64.49 (SD = 18.58). The median score was 67.0 and the mode was 90. The 71-80 score range yielded the highest percentage (22.0%).

Table 13.
Frequency of YLLSDS Scores of Respondents

Score*	n	%
0-10	2	1.2%
11-20	2	1.2%
21-30	7	4.0%
31-40	8	4.6%
41-50	13	7.5%
51-60	33	19.1%
61-70	33	19.1%
71-80	38	22.0%
81-90	36	20.8%
No Response	1	.6%
Total	173	100.0%

* M = 64.49, SD = 18.58.

Demographic Factors Influencing Involvement, Roles, and Skills Development

To determine if certain demographic factors influenced level of involvement, involvement in leadership roles or leadership skills development, the researcher performed statistical analyses on all demographic factors, except ethnicity. No analyses were run for ethnicity because only 1.8% of respondents reported an ethnicity other than White (not of Hispanic origin).

Effects of Gender

The researcher performed Independent Samples t-tests comparing males and females with level of involvement scores, involvement in leadership roles scores, and YLLSDS scores. Table 14 outlined the means, standard deviations, and t-scores for the three factors.

Table 14.
Results for Gender Comparison t-tests

Score	Mean		SD		t	p
	Male	Female	Male	Female		
Level of Involvement	11.72	11.64	4.92	4.80	.097	0.923
Involvement in Leadership Roles	4.06	4.60	1.76	1.74	-1.922	0.056
YLLSDS	60.08	67.13	19.73	17.48	-2.439	0.016*

Note: df for Level of Involvement and Involvement in Leadership Roles was 166 and for YLLSDS it was 169.

* $p < 0.05$

The tests revealed no significant differences between level of involvement scores and the genders. A marginal difference ($p = .056$) existed in leadership roles scores. The test revealed a statistically significant difference ($p = .016$) between males and females in

comparing the YLLSDS scores, revealing that females had higher YLLSDS scores than males.

Effects of Age

The researcher used Pearson product-moment correlations to determine if age influenced involvement level and leadership roles. The analysis revealed a statistically significant weak correlation ($r = 0.211, p = 0.006$) between level of involvement scores and age, which explained 4.5% of the variation in level of involvement scores. A statistically significant weak correlation ($r = 0.247, p = 0.001$) was also discovered between involvement in leadership roles and age, explaining 6.1% of the variation in involvement in leadership roles scores.

It was a challenge to determine the correct test to establish whether age influenced YLLSDS scores. Due to the high variation in YLLSDS scores and low variation between age, Pearson product-moment correlations were not appropriate to determine the relationship. After consultation with a statistician, the researcher arranged the YLLSDS scores into three categories for the purpose of analyzing age effect: scores 0-30, representing no to slight gain; 31-60, a moderate gain; and 61-90, a high gain. One-Way Analysis of Variance (ANOVA) allowed the researcher to determine if significant variation between age groups existed. The ANOVA revealed no significant difference, ($F(5, 165) = 0.918, p = 0.471$) at the a priori 0.05 alpha.

Effects of Location

The researcher examined the effects of location using One-Way ANOVA. Table 16 detailed the outcome of the analysis for each score at each location. The test returned no significant differences in scores in any of the locations.

Table 15.
Results from Location Comparison ANOVA

Location	Level of Involvement*			Involvement in Leadership Roles**			YLLSDS Score***		
	n	Mean	SD	n	Mean	SD	n	Mean	SD
Farm or Ranch	101	11.2	4.50	101	4.29	1.80	103	62.7	19.1
Rural Community	38	11.3	4.44	38	4.61	1.69	38	66.2	18.7
Urbanized Area	9	13.8	5.91	9	5.22	1.99	9	78.0	11.0
Urban Area	14	14.2	6.20	14	4.00	1.47	14	62.1	20.2
Total/Average	162	11.6	4.79	162	4.39	1.76	164	64.3	18.9

* No significant difference, $F(3, 158) = 2.350, p = .075$.

** No significant difference, $F(3, 158) = 1.205, p = .310$.

*** No significant difference, $F(3, 160) = 2.051, p = .109$.

Effects of School Type

An additional One-Way ANOVA assisted the researcher in determining significant variations between school type, comparing home school, private school and public school. No statistically significant differences in scores between types of schooling were evident. The analysis results were detailed in Table 16.

Table 16.
Results from School Type Comparison ANOVA

Location	Level of Involvement*			Involvement in Leadership Roles**			YLLSDS Score***		
	n	Mean	SD	n	Mean	SD	n	Mean	SD
Home School	22	12.4	4.72	22	4.14	1.28	22	62.1	18.0
Private School	5	13.8	8.04	5	3.40	1.14	5	63.0	21.7
Public School	140	11.5	4.75	140	4.47	1.84	143	64.9	18.8
Total/Average	167	11.7	4.85	167	4.40	1.77	170	64.5	18.7

* No significant difference, $F(2, 164) = .815, p = .444$.

** No significant difference, $F(2, 165) = 1.162, p = .315$.

*** No significant difference, $F(2, 167) = .236, p = .790$.

Effect of 4-H District

Table 17 showcased the results of the One-Way ANOVA tests used in determining significant variations between level of involvement, involvement in leadership roles and YLLSDS scores across the 4-H Districts in Montana (See Figure 1). Level of involvement scores differed with statistical significance ($F = 2.30, p = 0.028$) across the eight Districts. Tukey post-hoc comparisons of the eight Districts indicated that District 3 had statistically significant higher scores ($p = .039$) than District 8. The analyses revealed no statistically significant differences between the Districts when comparing involvement in leadership roles.

Table 17.
Results from District Comparison ANOVA

District	Level of Involvement*			Involvement in Leadership Roles**			YLLSDS Score***		
	n	Mean	SD	n	Mean	SD	n	Mean	SD
1	19	13.0	4.64	19	4.84	1.92	19	65.5	18.3
2	11	12.3	5.90	11	5.27	2.24	13	66.4	19.9
3	39	13.2	5.41	39	4.18	1.39	39	68.2	14.7
4	26	10.1	3.04	26	4.08	1.92	27	60.0	18.8

Table 17 (continued).

District	Level of Involvement*			Involvement in Leadership Roles**			YLLSDS Score***		
	n	Mean	SD	n	Mean	SD	n	Mean	SD
5	22	12.6	4.49	22	4.64	1.87	21	66.8	17.4
6	18	11.2	5.29	18	4.06	1.67	18	73.3	13.0
7	10	10.9	5.80	10	3.80	1.03	10	62.5	16.7
8	24	9.3	3.40	24	4.58	1.89	25	54.3	24.3
Total/Average	169	11.7	4.82	169	4.39	1.76	172	64.5	18.6

* Significant difference found, $F(7, 161) = 2.312, p = .028$.

** No significant difference, $F(7, 161) = 1.139, p = .341$.

*** Significant difference found, $F(7, 164) = 2.30, p = .029$.

YLLSDS scores revealed statistically significant ($F = 2.30, p = 0.029$) differences across the eight Districts. Tukey post-hoc comparisons of the eight Districts indicated a higher score that was statistically significant ($p = .019$) between District 6 and District 8. A marginal difference ($p = .064$) between District 3 and District 8 was also worth noting, since those two districts had statistically significant differences in level of involvement scores, as previously noted.

Participation in 4-H Influencing Involvement, Leadership Roles and Skills Development

The researcher used Pearson product-moment correlation, Mann-Whitney U test, and independent samples t-test to determine if 4-H participation influenced level of involvement, involvement in leadership roles or leadership skills development. Factors analyzed were years in 4-H and the involvement in the Ambassador program.

Effect of Years Enrolled in 4-H

Pearson product-moment correlation was completed to determine if years in 4-H influenced level of involvement scores and involvement in leadership roles scores. The results revealed a statistically significant weak relationship ($r(166) = 0.250, p = 0.001$) between level of involvement scores and years in 4-H, and determined that years in 4-H accounted for 6.2% ($r^2 = 0.062$) of the variation in level of involvement scores. The correlation also revealed a statistically significant weak relationship ($r(166) = 0.231, p = 0.003$) between involvement in leadership roles scores and years in 4-H, which accounted for 5.4% ($r^2 = 0.054$) of the variation in involvement in leadership roles scores.

As with age in the previous section, the researcher faced a challenge in determining an appropriate test to establish whether years in 4-H influenced YLLSDS scores. Again, this was due to the large variation in YLLSDS scores and minimal variation in 4-H enrollment years; correlation analyses could not effectively be used to determine the relationship. Therefore, the researcher, on the advice of a statistician, grouped the YLLSDS scores into the same three categories as previously used and explained. Years in 4-H were also grouped into two categories to further reduce the variability and improve the distribution. Respondents who were in 4-H for five or less years were in one category, and those in 4-H greater than five years were in the second category. The researcher used the Mann-Whitney U test to compare each YLLSDS category against one another; the analysis revealed no statistically significant differences between age categories.

Effects of the Ambassador Program

An Independent Samples t-test was done to compare the level of involvement scores, involvement in leadership roles scores and YLLSDS scores of those who had been Ambassadors ($n = 53$) and those who had never been an Ambassador ($n = 112$). Table 18 displayed the results. The t-tests revealed Ambassadors had statistically significant different ($t = 5.66, p = 0.000$) level of involvement scores, statistically different ($t = 5.73, p = 0.000$) involvement in leadership roles scores, and statistically different ($t(165) = 2.67, p = 0.008$) YLLSDS scores.

Table 18.
Results for Ambassadors Comparison t-tests

Score	Mean		SD		t	p
	Ambassador	Not an Ambassador	Ambassador	Not an Ambassador		
Level of Involvement	14.58	10.39	5.422	3.903	5.66	.000*
Involvement in Leadership Roles	5.45	3.90	2.053	1.375	5.73	.000*
YLLSDS	70.1	62.0	15.3	19.5	2.67	.008*

Note: df for Level of Involvement and Involvement in Leadership Roles was 163 and for YLLSDS it was 165.

* $p < 0.01$

Level of Involvement and Involvement in Leadership Roles Influencing Leadership Skill Development

The researcher used Pearson product-moment correlation to determine whether level of involvement and involvement in leadership roles influenced leadership skills development. Analysis revealed the weak positive relationships ($r = 0.263$) between level of involvement scores and YLLSDS Scores were statistically significant ($p =$

0.001), and accounted for 6.9% ($r^2 = 0.069$) of the variation in YLLSDS scores. The correlation between involvement in leadership roles scores and YLLSDS scores was also statistically significant, ($r(168) = .270, p = .000$) and accounted for 7.3% ($r^2 = .0729$) of the variation in YLLSDS scores. A moderate positive and statistically significant correlation also existed between participation scores and level of involvement scores ($r(169) = .411, p = .000$).

Summary of Findings

The researcher found the population demographics consisted of 62% females and 38% males. The mean age was 16.2 years, 95.4% were white and 83% attended a public school. Over 60% lived on a farm or ranch and 22% lived in a rural community. The 4-H District with the most representation was District 3 with 22.5%.

The YLLSDS determined the perceived leadership life skills of Montana 4-H youth. The responses with the highest mean values were “have good manners”, “get along with others”, “show a responsible attitude”, “have a friendly personality”, “respect others”, and “can handle mistakes”. The responses with the lowest mean values were “can determine needs”, “trust others”, and “can express feelings”.

Independent sample t-tests determined that Montana 4-H Ambassadors had statistically significant higher YLLSDS scores than those who had never been an Ambassador. The researchers also found that Ambassadors had higher level of involvement and involvement in leadership roles scores.

The factors that had the greatest influence on leadership life skills development were gender, various 4-H Districts, participation in the Ambassador program, level of involvement in 4-H activities and involvement in leadership roles. All of these factors were statistically significant at 0.05 alpha. The factors that did not appear to influence skill development were age, place of residence, school type, and years in 4-H.

Age, years in 4-H, and participation in the Ambassador program had the greatest influence on level of involvement and involvement in leadership roles. Some 4-H districts influenced level of involvement. Gender, place of residence and school type did not influence any of these factors.

CHAPTER 5

CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

The conclusions, implications and recommendations for this study were organized by objective.

Objectives of the Study

The purpose of this study was to assess the perceptions of Montana 4-H youth related to their leadership life skills and to determine the significant factors that influenced the development of those life skills. To accomplish the purpose of this study, the researcher established the following specific objectives:

1. Determine the selected demographics for the target population of Montana 4-H Congress participants and Montana 4-H Ambassadors;
2. Determine the self-perceived leadership life skills of the target population of Montana 4-H Congress participants and Montana 4-H Ambassadors;
3. Determine if there was a statistically significant difference between the perceived leadership skills of Montana 4-H Ambassadors and 4-H youth;
4. Identify significant factors that predict or influence perceived leadership life skills, by comparing demographics, 4-H participation, level of involvement, and involvement in leadership roles to perceived leadership life skills.
5. Identify significant factors that predict or influence levels of involvement and involvement in leadership roles, by comparing demographics, 4-H participation and leadership skills to those factors.

Demographics and Characteristics of Montana 4-H Youth

The first objective was to determine the demographics of the target population of Montana 4-H Congress participants and Montana 4-H Ambassadors.

The population of Montana 4-H youth was not ethnically diverse. When comparing Montana demographics with the demographics of Montana 4-H youth, 4-H youth were even less diverse than the state population. In Montana, Whites made up 89.7% of the population (US Census Bureau, 2006). Within the population of Montana 4-H youth, 95.4% were White. American Indians and Alaskan Natives were the second largest ethnic group in the state at 6.3% (US Census Bureau, 2006). In this study, only 0.6% fell into that ethnic category.

Montana 4-H should encourage more diversity in the 4-H program, especially for Congress and the Ambassador program. The Montana 4-H Center for Youth Development staff should encourage county agents and volunteers, particularly on reservations, to recruit and support American Indian youth to be actively involved in the 4-H program and participate in statewide activities and events. Furthermore, it is also important to research cultural differences. Through the understanding of different cultures, it may become easier to promote Congress and the Ambassador program as well as finding ways to appeal the event to American Indian youth. It would also be of value to analyze other youth organizations that have been more successful at appealing to potential minority participants, especially American Indian youth.

Other general demographic characteristics were similar to those expected of the population of Montana 4-H youth. These characteristics included 62% female, 38% male, 60% lived on a farm or ranch, and 18% in a rural community.

When analyzing school type, the researcher found 82.7% attended public schools and 13.3% were homeschooled. 4-H can be a valuable organization for students who are homeschooled and do not have the opportunity to take part in the extracurricular activities offered by the public school system. The amount of homeschoolers who were active in the 4-H program at Congress and the Ambassador program (13.3%) was much higher than the proportion of homeschoolers in the state of Montana at 2.6% (Montana Office of Public Instruction, 2007). Dr. Brian Ray of the National Home Education Research Institute (2008) suggested that home-based education was the fastest growing form of education in the United States. Homeschooled students should be encouraged to be involved in 4-H to build leadership life skills and provide opportunities for social interactions, especially in rural areas where those students have few other options for youth programs. Knutz (2007) believed 4-H professionals can increase the scope of their program to meet the needs of homeschooled youth in the community.

The eight 4-H Districts were not evenly represented with District 3 having the most representation at 22.5% ($n = 39$) and District 7 having the least representation at 5.8% ($n = 10$). Beside these two outliers, the other Districts each represented 10-15% of the study population. It is important to acknowledge that the actual 4-H population of some Districts was larger than others resulting in a higher proportion of the sample population. However, this may not have always been the case due to random sampling.

When comparing the research population by District to the actual proportion of the Montana 4-H population from each 4-H District, the study population did not accurately reflect Montana 4-H by District (Montana 4-H Center for Youth Development, 2007).

Self-Perception of Leadership Life Skills of Montana 4-H Youth

The second objective was to determine the self-perceived leadership life skills of the target population of Montana 4-H Congress participants and Montana 4-H Ambassadors.

To determine the self-perceived leadership life skills of the population, the researcher used the Youth Leadership Life Skills Development Scale (YLLSDS). The six responses with the highest mean values were “have good manners,” “get along with others,” “show a responsible attitude,” “have a friendly personality,” “respect others,” and “can handle mistakes.” Among other leadership skills identified by Bruce, Boyd & Dooley (2004), the top leadership skills identified from the study largely dealt with relationships and groups processes. These findings signify Montana 4-H has been successful at building such skills with youth; team work activities focused on supporting relationships and group skill processes should continue to be stressed.

The leadership life skills with the lowest mean values on the YLLSDS were “can determine needs,” “trust other people,” and “can express feelings.” The findings indicate that 4-H leaders in Montana must improve programs that help individuals or clubs with needs assessments, trust-building and appropriate expression of feelings.

The YLLSDS score showed the overall development of leadership life skills. Over sixty percent of respondents scored above sixty points, indicating respondents perceived they had gained above a moderate level of life skill development through 4-H, while 5.8% achieved the maximum amount of gain from the 4-H program. Only two respondents (1.2%) indicated no gain from involvement in 4-H. This information supported the belief that the 4-H program in Montana has made positive impacts on youth through developing leadership life skills. Montana 4-H staff and volunteers should continue to develop programs that encourage decision making, relationship-building, management, self understanding, group processes, and communications.

Difference in Self-Perception of Leadership Life Skills Between Montana Ambassadors and 4-H Youth

The third objective was to determine if there is a statistically significant difference between the self-perceived leadership life skills of Montana 4-H Ambassadors and 4-H youth.

Statistical tests revealed that Montana 4-H Ambassadors had statistically significant higher YLLSDS scores than those who had never been involved in the Ambassador program. This supported the idea that the Ambassador experience was worthwhile.

Ambassadors generally had more opportunities for leadership training than 4-H youth who had not had the Ambassador experience. Further research is needed to determine the ways the Ambassador program influenced leadership life skill development and why Ambassadors had higher scores. The 4-H program would be strengthened

through providing higher levels of leadership life skills development for all Montana 4-H youth.

Furthermore, the researcher recommends that the Montana Center for 4-H Youth Development staff create a campaign to encourage eligible 4-H youth to participate in the Montana Ambassador program. In some counties, agents and volunteers had difficulty finding youth to participate in the program, therefore, a systematic promotion program is needed. In order to accomplish this recommendation, Center staff will need to identify and work to eliminate barriers to participation. It may also be beneficial for the Montana 4-H Center staff to develop a set of guidelines county leaders may use when selecting Ambassadors. The guidelines would help county agents and volunteers identify potential Ambassadors. Since this study shows the success of the program, expanding the Ambassador program may also be of value to Montana 4-H. This study indicated that the Ambassador program does a superior job building life skills and positively influencing youth. Those successes should be examined for use in state, county and club level programs.

Factors Influencing Leadership Life Skills Development

The fourth objective was to identify significant factors that predicted or influenced leadership life skills, by comparing demographics, 4-H participation, level of involvement, and involvement in leadership roles to self-perceived leadership life skills. This section was organized around the four areas that potentially predicted or influenced

leadership life skills development: demographics, 4-H participation, level of involvement in 4-H activities and involvement in 4-H leadership roles.

Demographics

Statistical analysis revealed females had statistically significantly higher YLLSDS scores than males, which was consistent with the findings of Seevers & Dormody (1994, 1995) from their studies of senior 4-H members in Arizona, Colorado, and New Mexico. Further research is recommended to determine why females had greater success at building leadership life skills through 4-H than males. The researcher also recommends that the Montana 4-H Center staff continue to track the unequal involvement between females and males; a trend would indicate males need more encouragement to participate in 4-H activities or that the activities be adapted to appeal more to male 4-H youth.

The findings indicated 4-H was successful at building leadership life skills no matter the background of the participant. No specific age, place of residence, or school type gave youth a particular advantage. This conclusion supports the Seevers & Dormody (1994, 1995) conclusions. The Seevers & Dormody studies did not analyze school type. The majority of respondents in this study attended public schools. The researcher recommends the Montana 4-H Center staff continue to track the school setting status of members to determine if the 4-H programs are truly reaching all public, private and homeschooled students.

The statistically significant difference in YLLSDS scores between certain 4-H Districts led to the conclusion that Districts provided opportunities and influenced leadership life skills development differently. Some Districts were apparently more

active than others at providing District-wide activities, although the researcher did not study this aspect. It was also known that the population was not an accurate representation of Montana 4-H Districts. Therefore, further research is recommended to analyze the factors within each of the eight Montana 4-H Districts that play a role in overall leadership life skills development, and compare those districts with higher YLLSDS scores to those with lower YLLSDS scores. Factors potentially impacting leadership skills development within Districts are travel time, demographics, cultural settings, and District involvement.

Participation in 4-H

The researcher determined that, contrary to popular belief, years in 4-H did not influence leadership life skills development, consistent with conclusions of Seevers & Dormody (1994, 1995). Thus, participation in 4-H can positively influence leadership life skill development regardless of number of years of membership.

Level of Involvement in 4-H Activities

To determine if involvement in 4-H activities influenced YLLSDS scores, the level of involvement score (LIS) was used. The researcher found that the level of involvement in 4-H activities predicted 6.9% of the YLLSDS scores, putting Montana 4-H youth in the middle of research findings of similar studies. Seevers & Dormody (1994, 1995) found that 12.6% of the variance in YLLSDS scores were explained by participation in 4-H leadership activities. Other 4-H research by Boyd, Herring & Briers (1992) found that Texas 4-H participation explained 3.3% of the variance. Another study

using the YLLSDS scores only comparing FFA members, found that participation in FFA activities explained 2.3% of the variance in YLLSDS scores (Dormody & Seevers, 1994). This research sustained the results from other studies.

Involvement in 4-H activities is clearly not the only factor influencing leadership skills development. Nevertheless, Montana 4-H youth should be encouraged to participate in a variety of 4-H activities. The LIS included a variety of opportunities available through 4-H, ranging from livestock judging to National 4-H Convention, and participation at all levels. All of the opportunities played a role in building leadership life skills. Therefore, 4-H county staff and club leaders should ensure that 4-H youth have adequate opportunities to participate in a variety of activities and leadership events. Further research is needed to determine which activities have the greatest influence on leadership life skill development.

Involvement in Leadership Roles

Involvement in leadership roles had a greater influence on YLLSDS scores than involvement in leadership activities, and accounted for 7.3% of the variation in YLLSDS scores. The researcher found no other studies that used leadership roles as a factor for assessing leadership skill development and YLLSDS scores.

Leadership roles were extremely important as a way for 4-H youth to build leadership life skills. Leadership roles at all levels were important. Thus, club leaders and county and state staff should develop a systematic means that encourages 4-H youth to participate in leadership roles at the club, county, state, and national levels. The researcher recommends that Montana 4-H Center staff assist the adult volunteers and

leaders in counties to create a systematic hierarchal structure within counties and clubs to engage all ages of youth in leadership. Leadership roles employ many of the seven key leadership life skills including decision making, communications, group processes and management.

Factors Influencing Level of Involvement and Involvement in Leadership Roles

The fifth objective was to identify the significant factors that predict or influence levels of involvement and involvement in leadership roles, by comparing demographics, 4-H participation and leadership skills to those factors. Evidence from findings revealed that level of involvement in 4-H activities and involvement in leadership roles played a role in building leadership life skills in youth. Therefore, it was also important to establish if there were factors significantly influencing involvement in 4-H activities or leadership roles. This section was organized by level of involvement in 4-H activities and involvement in 4-H leadership roles.

Level of Involvement in 4-H Activities

Gender, place of residence and school type did not influence level of involvement scores (LIS). Age, 4-H Districts, years in 4-H and Ambassador program participation did influence level of involvement. Age predicted 4.5% of LIS and years in 4-H predicted 6.2% of the variation in scores. Since the score was partially based on the number of activities in which the youth had participated, those who had been in 4-H longer and were older had more opportunities to participate. District 3 had a much higher LIS than

District 8. However, District 6 had higher YLLSDS score than District 8. The researcher concluded that level of involvement wasn't dependable as the main predictor of leadership skills. Future studies should examine what District 3 leaders are doing differently than leaders in other districts to promote involvement and 4-H leadership. The Ambassador program gave youth more opportunities to be involved in a variety of activities and be more involved at the club, county and state levels. An overarching recommendation from this study is for the Montana 4-H Center staff to develop a means of advertising and promoting involvement in the Ambassador program.

Involvement in Leadership Roles

The research disclosed that gender, place of residence, school type and 4-H Districts did not influence involvement in leadership roles. The biggest influencers were age, years in 4-H, and participation in the Ambassador program. As could be expected, with age and more time in 4-H there were more opportunities for leadership roles. The finding again attested to the Ambassador program's effectiveness. Without exception, 4-H Ambassadors were involved in a greater number of leadership roles at both the county and state level. This conclusion led to additional confirmation for the recommendation that a means for advertising and promoting involvement in the Ambassador program is needed.

Summary

This research was valuable to understand how youth in Montana perceived their leadership life skills as gained through 4-H. It provided educators, administrators,

volunteers and county agents with insight to the areas of 4-H that influenced the building of leadership life skills. This knowledge provided the Montana 4-H program with the basis for strengthening the current leadership program and developing gender-specific and culturally-relevant leadership skills training.

Further research can provide more in-depth analysis of specific activities, leadership roles and features of the Ambassador program that are most successful at building these essential skills. Further investigation of the participation and involvement difference between the respective 4-H Districts will also help state and county staff to target programs for 4-H youth in those districts. The Montana 4-H program would also benefit from replication of this study comparing 4-H Congress participants to non-participants as well as a replication comparing 4-H youth and non-4-H youth.

Through this study, the researcher has concluded that 4-H was a successful program that fulfilled its mission and improved the leadership life skills of its youth. There is no doubt self-perceived leadership life skills were positively impacted by involvement in the 4-H youth development program.

LIST OF REFERENCES

- The American Heritage Dictionary of the English Language (4th ed.). (2007). Boston, MA: Houghton Mifflin Company. [Electronic Version]. Retrieved November 29, 2007 from <http://www.answers.com/topic/self-perception-theory>
- Astroth, K.A. (1993). Are youth at risk?. *Journal of Extension*, 31 (3). Retrieved December 3, 2007, from <http://www.joe.org/joe/1993fall/a6.html>.
- Astroth, K.A. (1996, December). Leadership in Nonformal youth groups: Does style affect youth outcomes?. *Journal of Extension*, 34 (6). Retrieved November 12, 2007, from <http://www.joe.org/joe/1996december/rb2.html>
- Astroth, K.A. & Haynes, G.W. (2002, August). More than cows & cooking: new research shows impact of 4-H. *Journal of Extension*, 40 (4). Retrieved December 3, 2007, from <http://www.joe.org/joe/2002august/a6.shtml>.
- Boyd, B.L., Herring, D.R. & Briers, G.E. (1992). Developing life skills in youth. *Journal of Extension*, 30 (4). Retrieved November 12, 2007, from <http://www.joe.org/joe/1992winter/a4.html>.
- Bradbury, R.M. (2005, April). Montana State 4-H Leader College: Does it Make a Difference?. Unpublished Master's Thesis. Montana State University-Bozeman.
- Bruce, J.A., Boyd, B.L. & Dooley, K.E. (2004, October). Leadership life skills demonstrated by state 4-H council members. *Journal of Extension*, 42 (5). Retrieved November 29, 2007, from <http://www.joe.org/joe/2004october/a6.shtml>.
- Dormody, T. J. & Seevers, B.S. (1994). Predicting youth leadership life skills development among FFA members in Arizona, Colorado, and New Mexico. [Electronic version] *Journal of Agricultural Education*, 35 (5), 65-71.
- Florida 4-H Youth Development. (n.d.). *Florida 4-H Program Handbook*. Retrieved October 20, 2008, from http://florida4h.org/staff/program_handbook/.
- Goodwin, J., Barnett, C., Pike, M., Peutz, J., Lanting, R., & Ward, A. (2005, August). Idaho 4-H impact study. *Journal of Extension* 43 (4). Retrieved October 3, 2008, from <http://www.joe.org/joe/2005august/a4.shtml>.
- Guion, L.A. & Rivera, B.E. (2006, September). Statistical testing of a measure of youth's perceived improvement in life skills. *Journal of Youth Development*, 1 (2). Retrieved December 1, 2007, from <http://www.nae4ha.org/directory/jyd/showdoc.aspx?id=151e1148-af2c-4f1c-b51c-ef5de5649b2b>.

- Klau, M., Boyd, S. & Luckow, L. (Eds.). (2006). *New directions for youth development: youth leadership*. San Francisco: Jossey-Bass.
- Kleon, S. & Rinehard, S. (1998, June). Leadership skill development of teen leaders. *Journal of Extension*, 36, (3). Retrieved November 12, 2007, from <http://www.joe.org/joe/1998june/rb1.html>.
- Knutz, M. (2007, June). 4-H delivery to homeschool audiences. *Journal of Extension*, 45 (3). Retrieved October 21, 2008, from <http://www.joe.org/joe/2007june/iw1.shtml>.
- Leedy, P.D. & J.E. Ormrod. (2005). *Practical Research (8th Ed.)*. Upper Saddle River, New Jersey: Pearson Education, Inc.
- Locke, B. (2004, August). *Service-learning and leadership life skills: an experimental study*. (Doctoral dissertation, Texas A&M University- College Station). Retrieved November 13, 2007, from <https://txspace.tamu.edu/bitstream/handle/1969.1/1060/etd-tamu-2004A-AGED-Locke-2.pdf?sequence=1>
- Montana 4-H Center for Youth Development. (n.d.). Montana 4-H Congress. Retrieved November 10, 2008, from <http://www.montana4h.org/#program:1>.
- Montana 4-H Center for Youth Development. (n.d.). Montana 4-H Projects. Retrieved October 20, 2008, from <http://www.montana4h.org/#projects>.
- Montana 4-H Center for Youth Development. (2007). [2007-2008 Montana 4-H Enrollment Numbers.] Unpublished raw data.
- Montana 4-H Center for Youth Development. (2002, July). *Montana 4-H Ambassador Handbook*. Retrieved November 30, 2007, from http://montana4h.org/index.php/montana_4_h_center_for_youth_development/youth/ambassador_program.
- Montana Office of Public Instruction. (2007). *Montana Public School Enrollment Data: Fall 2006-07*. Retrieved October 8, 2008, from <http://www.opi.state.mt.us/>.
- National 4-H Council. (2007). *4-H Youth Development: An Overview*. Retrieved November 29, 2007, from http://www.fourhcouncil.edu/uploadedFiles/About/4-H%20Fact%20Sheet_0907.pdf.
- Norman, M.N. & Jordan, J.C. (n.d.). *Targeting life skills in 4-H*. University of Florida, Institute of Food and Agricultural Sciences. Retrieved October 3, 2008, from http://florida4h.org/clubs/files/101.9_Targeting_Life_Skills.pdf.

- Nunnally, J. (1978). *Psychometric theory*. New York: McGraw-Hill.
- Parrish, R.E. & Igo, C.G. (2006). *Community involvement: Does 4-H make a difference?* Proceedings of the Annual Western District Agricultural Education Research Conference, Boise, ID. 25, 51-61.
- Ray, B.D. (2008, July 2). *Research facts on Homeschooling*. National Home Education Research Institute. Retrieved October 21, 2008, from <http://www.nheri.org/Research-Facts-on-Homeschooling.html>.
- Ricketts, J.C. & Rudd, R.D. (2004). Leadership development factors contributing to the success of former state FFA officers. [Electronic version] *Journal of Southern Agricultural Education Research*, 54 (1), 78-89.
- Rotter, C.A. (2004, May). *Self-perceptions of leadership skills and attitudes of college sophomore student leaders*. (Doctoral dissertation, Texas A&M University-College Station). Retrieved November 13, 2007, from <https://txspace.tamu.edu/bitstream/handle/1969.1/527/etd-tamu-2004A-AGED-Rotter-1.pdf;jsessionid=B2B41CF1EA7F4CF1EF26347BC7E3830E?sequence=1>
- Rutherford, T.A., Townsend, C.D., Briers, G.E., Cummins, R. & Conrad, C.R. (2002). Leadership self-perceptions of WLC participants. [Electronic version] *Journal of Agricultural Education*, 43 (2), 22-33
- Santos, J.R. (1999, April). Conbach's alpha: A tool for assessing the reliability of scales. *Journal of Extension*, 37 (2). Retrieved October 21, 2008, from <http://www.joe.org/joe/1999april/tt3.html>.
- Seevers, B.S. & Dormody, T.J. (1994). Predicting youth life leadership skills development among senior 4-H members: a tri-state study. [Electronic version]. *Journal of Agricultural Education*, 35 (3), 64-69.
- Seevers, B.S. & Dormody, T.J. (1995, August). Leadership life skills development: perceptions of senior 4-H youth. *Journal of Extension*, 33 (4). Retrieved November 15, 2007, from <http://www.joe.org/joe/1995august/rb1.html>.
- Seevers, B.S., Dormody, T.J. & Clason, D.L. (1995). Developing a scale to research and evaluate youth leadership life skills development. [Electronic version] *Journal of Agricultural Education*, 36 (2), 28-34.
- Smith, T.A., Genry, L.S. & Ketring, S.A. (2005, April). Evaluating a youth leadership life skills development program. *Journal of Extension*, 43 (2). Retrieved December 4, 2007, from <http://www.joe.org/joe/2005april/rb3.shtml>.

- Thorp, L., Cummins, R. & Townsend, C. (1998). Women's self-perceived leadership skills in a collegiate agricultural education course. [Electronic version] *Journal of Agricultural Education*, 39 (1) 55-62.
- US Census Bureau. (2006). 2006 American Community Survey. Retrieved October 8, 2008, from http://factfinder.census.gov/servlet/ACSSAFFacts?_event=Search&_state=04000US30&_lang=en&_sse=on.
- Wessel, T. & Wessel, M. (1982). *4-H: an American idea 1900-1980*. Chelsea, Michigan: Bookcrafters.
- Wingard, K.J. (1996). *Life skill development of Montana 4-H campers*. Unpublished master's thesis, Montana State University-Bozeman.
- Wingenbach, G.J. & Kahler, A.A. (1997). Self-perceived youth leadership and life skills of Iowa FFA members. [Electronic version] *Journal of Agricultural Education*, 38 (3), 18-27

APPENDICES

APPENDIX A

IRB APPROVAL FORM



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406-994-6783
cherylj@montana.edu

MEMORANDUM

TO: Allison Flynn
FROM: Mark Quinn, Ph.D. Chair *Mark Quinn CH*
Institutional Review Board for the Protection of Human Subjects
DATE: April 28, 2008
SUBJECT: *Self Perception of Leadership Skills of Montana 4-H Members [AF042808-EX]*

The above research, described in your submission of April 27, 2008, is exempt from the requirement of review by the Institutional Review Board in accordance with the Code of Federal Regulations, Part 46, section 101. The specific paragraph which applies to your research is:

- (b)(1) Research conducted in established or commonly accepted educational settings, involving normal educational practices such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
- (b)(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.
- (b)(3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, if: (i) the human subjects are elected or appointed public officials or candidates for public office; or (ii) federal statute(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.
- (b)(4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available, or if the information is recorded by the investigator in such a manner that the subjects cannot be identified, directly or through identifiers linked to the subjects.
- (b)(5) Research and demonstration projects, which are conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in or alternatives to those programs or procedures; or (iv) possible changes in methods or levels of payment for benefits or services under those programs.
- (b)(6) Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed, or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the FDA, or approved by the EPA, or the Food Safety and Inspection Service of the USDA.

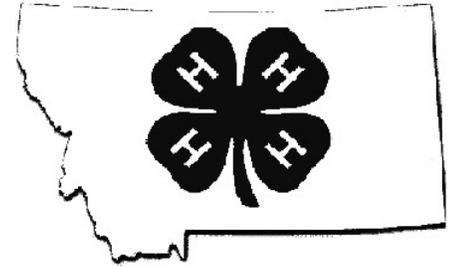
Although review by the Institutional Review Board is not required for the above research, the Committee will be glad to review it. If you wish a review and committee approval, please submit 3 copies of the usual application form and it will be processed by expedited review.

APPENDIX B

MONTANA LEADERSHIP LIFE SKILLS SURVEY

Leadership Skills Survey

Please tell us a little about yourself.



1. Gender: Male Female
2. Age: _____
3. Ethnicity:
 - a. White (Not of Hispanic Origin)
 - b. Black/African American (Not of Hispanic Origin)
 - c. American Indian or Alaskan Native
 - d. Hispanic
 - e. Asian or Pacific Islander
4. Not including Cloverbuds (age 6-8), how many years have you been in 4-H? _____
5. I am or have been a county 4-H Ambassador: YES NO
6. I grew up:
 - a. on a farm or ranch
 - b. in a rural community (population of < 2500)
 - c. in an urbanized area (population 2500-20,000)
 - d. in an urban area (population > 20,000)
7. Where do you attend school?
 - a. Home School
 - b. Private School
 - c. Public School
8. What region are you from? (*circle number*)



9. Have you lived in a state other than Montana? YES NO
 If yes, were you enrolled in 4-H (not including Cloverbuds) in that state? YES NO

10. **Please rank your level of 4-H involvement in activities** such as meetings, competitions, fairs, workshops, conferences, community service, and camps.

	Minimally Involved		Heavily Involved	
Club Participation	0-2 hrs/mo	3-5 hrs/mo	6-8 hrs/mo	over 8 hrs/mo
Participation at County Level	0-2 hrs/mo	3-5 hrs/mo	6-8 hrs/mo	over 8 hrs/mo
Participation at State Level	0-2 hrs/mo	3-5 hrs/mo	6-8 hrs/mo	over 8 hrs/mo

Please check each State and Regional/National/International level 4-H activity in which you have participated:

STATE

- Montana 4-H Congress
- Montana 4-H Pre-Congress
- Montana 4-H Rec Lab
- Ambassador Fall Training
- Montana Citizenship Seminar
- Montana 4-H Leadership Forum
- Montana Range Days
- MSU Ag Days
- Montana State 4-H Horse Show
- Montana State Fair
- Montana 4-H Legislative Breakfast
- Other Montana Event(s) (*specify*) _____

REGIONAL/NATIONAL/INTERNATIONAL

- Western 4-H Roundup
- Western Regional Leaders Forum
- Other Regional Event(s) (*specify*) _____
- National 4-H Congress
- National 4-H Conference
- Citizen Washington Focus
- Other National Event(s) (*specify*) _____
- International Participation (*specify*) _____

11. **Please circle your level of 4-H involvement in leadership roles** such as club or county officer positions, county or state Ambassador, club or county committee chairs, state-level committee member **since October 2006.**

Leadership in Club	0-2 roles	3-5 roles	6-8 roles	over 8 roles
Leadership at County Level	0-2 roles	3-5 roles	6-8 roles	over 8 roles
Leadership at State Level	0-2 roles	3-5 roles	6-8 roles	over 8 roles

What leadership skills have you improved because of your 4-H involvement? Please answer each item by circling the number you feel represents your gain for each skill. Please answer every question.

As a result of my 4-H experiences I:

	No Gain	Slight Gain	Moderate Gain	A Lot of Gain
12. Can determine needs	1	2	3	4
13. Have a positive self-concept	1	2	3	4
14. Can express feelings	1	2	3	4
15. Can set goals	1	2	3	4
16. Can be honest with others	1	2	3	4
17. Can use information to solve problems	1	2	3	4
18. Can delegate responsibility	1	2	3	4
19. Can set priorities	1	2	3	4
20. Am sensitive to others	1	2	3	4
21. Am open-minded	1	2	3	4
22. Consider the needs of others	1	2	3	4
23. Show a responsible attitude	1	2	3	4
24. Have a friendly personality	1	2	3	4
25. Consider input from all group members	1	2	3	4
26. Can listen effectively	1	2	3	4
27. Can select alternatives	1	2	3	4
28. Recognized the worth of others	1	2	3	4
29. Create an atmosphere of acceptance	1	2	3	4
30. Can consider alternatives	1	2	3	4
31. Respect others	1	2	3	4
32. Can solve problems	1	2	3	4
33. Can handle mistakes	1	2	3	4
34. Can be tactful	1	2	3	4
35. Can be flexible	1	2	3	4
36. Get along with others	1	2	3	4
37. Can clarify my values	1	2	3	4
38. Use rational thinking	1	2	3	4
39. Am open to change	1	2	3	4
40. Have good manners	1	2	3	4
41. Trust other people	1	2	3	4

APPENDIX C

LETTER OF CONSENT – CONGRESS PARTICIPANTS



July 8, 2008

Dear Congress Participant:

You have been selected to participate in a study investigating the perceived leadership skills of Montana 4-H members. The purpose of the study is gather information about how Montana 4-H youth perceive their leadership skills and if there are any relationships with leadership skills and demographics or level of involvement. The information obtained will be beneficial in developing and improving future youth development and leadership programs and activities for Montana 4-H youth.

Your participation will involve a few minutes to fill out the three page questionnaire. The questionnaire is straight-forward and designed to obtain your honest responses. There is no foreseeable risk involved for either participants or non-participants.

All of your information will be kept confidential. If you choose to participate, please do not put your name on anything except the consent form. The consent form and the questionnaire will be filed separately and there will be nothing to link your name to the information on the questionnaire. All responses will remain anonymous. Only group results will be reported.

Your participation in this leadership study is voluntary. You may choose not to participate and you may withdraw your consent to participate at any time. You will not be penalized in any way should you decide not to participate or to withdraw from this study.

If, after reading this letter and considering the impact of your involvement, you decide to participate, please sign the consent form on the following page then detach the consent form from the questionnaire. The consent form and the questionnaire must be turned in separately. **Keep this cover letter** - do not turn it in with your survey and consent form. If you decide not to participate, do not sign the consent form and turn in the form and questionnaire blank.



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P.O. Box 173580
Bozeman, MT 59717-3580

Tel (406) 994-3501
Fax (406) 994-5417
E-mail 4hmt@montana.edu

If you have any questions or concerns about this study or how the data will be reported and used, please contact Allison Flynn (406-994-5778), email allison.flynn@myportal.montana.edu or Carl Igo (406-994-3693), email cigo@montana.edu. If you have any questions or concerns about the rights of a research participant, please contact Dr. Mark Quinn, Institutional Review Board Chairperson (406-994-5721), email mquinn@montana.edu.

Sincerely,

Allison Flynn
Graduate Student

Carl Igo
Assistant Professor

APPENDIX D

LETTER OF CONSENT – AMBASSADORS



August 11, 2008

Dear 4-H Ambassador:

You have been selected to participate in a study investigating the perceived leadership skills of Montana 4-H members. The purpose of the study is gather information about how Montana 4-H youth perceive their leadership skills and if there are any relationships with leadership skills and demographics or level of involvement. The information obtained will be beneficial in developing and improving future youth development and leadership programs and activities for Montana 4-H youth.

Your participation will involve a few minutes to fill out the three page questionnaire. The questionnaire is straight-forward and designed to obtain your honest responses. There is no foreseeable risk involved for either participants or non-participants.

All of your information will be kept confidential. If you choose to participate, please do not put your name on anything except the consent form. The consent form and the questionnaire will be filed separately after they are received and there will be nothing to link your name to the information on the questionnaire. All responses will remain anonymous. Only group results will be reported.

Your participation in this leadership study is voluntary. You may choose not to participate and you may withdraw your consent to participate at any time. You will not be penalized in any way should you decide not to participate or to withdraw from this study.

If, after reading this letter and considering the impact of your involvement, you decide to participate, please sign the consent form on the following page and then fill out the included survey. Then **return the consent form and survey** in the prepaid envelope addressed to MSU Division of Ag Education **by August 20th**.

If you have any questions or concerns about this study or how the data will be reported and used, please contact Allison Flynn (406-994-5778), email allison.flynn@myportal.montana.edu or Carl Igo (406-994-3693), email cigo@montana.edu. If you have any questions or concerns about the rights of a research participant, please contact Dr. Mark Quinn, Institutional Review Board Chairperson (406-994-5721), email mquinn@montana.edu.



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Sincerely,

Allison Flynn
Graduate Student

Carl Igo
Assistant Professor

APPENDIX E
CONSENT FORM

Consent to Participant in Montana Leadership Skills Survey

AUTHORIZATION: I have read the above and understand there are no personal benefits, consequences or costs associated with my participation in this study. I understand that no personally identifiable information will be collected and that all my responses will be confidential and used only by the researcher for this study. Data will be looked at for the group as a whole. No answers provided will be identified to any individual respondent. I voluntarily agree to participate in this research. I understand that I may later refuse to participate, and that I may withdraw from the study at any time.

Printed Name: _____

Signature: _____

Date: _____