

REASSESSING 4-H PROGRAMMING STRATEGIES: A STUDY OF MINNESOTA 4-H REGION SIX

THESIS

Presented in Partial Fulfillment of the Requirements for
The Master of Education Degree in the
College of Education and Human Services Profession

By

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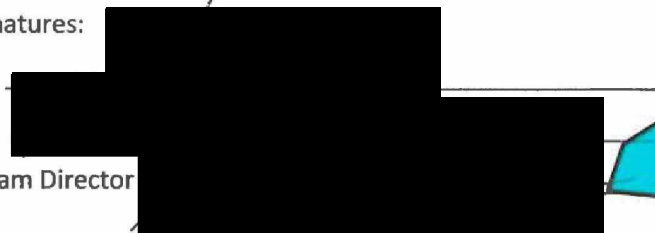
2014

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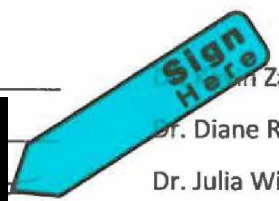
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Abstract

4-H youth development provides opportunities for youth in grades K-13 to explore new learning opportunities and community service. This study consisted of two parts. Part One measured members' experience with the 4-H mission mandates of citizenship, healthy living, and STEM. Part Two examined 4-H members' attitudes towards 4-H, as well as their ideas for improving the organization. The study included 95 youth ages 14 – 19 who had at least three years of 4-H experience and who lived in Minnesota 4-H Region Six, an area comprised of Benton, Meeker, Sherburne, Stearns, and Wright counties. 4-H members had the most experience in service, leadership, and prevention of substance abuse. The project areas with the least amount of reported experience included citizenship, engineering, and consumer science. 4-H members also shared ideas for improving the 4-H program, including highlighting community service opportunities; and creating more opportunities to develop practical skills. These results provide 4-H researchers and staff with a sound basis on which to build future programming initiatives.

Keywords: 4-H, mission mandates, positive youth development, citizenship, healthy living, STEM, attitudes

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CHAPTER ONE

Introduction

Today's youth have seemingly infinite options for extracurricular and out-of-school-time (OST) opportunities. Many families struggle to coordinate their children's extracurricular schedules with the demands of everyday life. Amidst this changing environment, 4-H youth development programs struggle to retain their once-prominent role in the lives of youth and families. Through diverse efforts, including establishing three mission mandates to guide youth programming, 4-H professionals are redefining their focus to meet the needs of today's audience.

Purpose of the Study

The purpose of this study was two-fold. First, the study intended to assess the mission mandates' effectiveness in Region Six (an area comprised of Wright, Sherburne, Meeker, Stearns, and Benton counties in Minnesota). By structuring questions around the mission mandates' different elements, the study's first section was designed to identify 4-H members' experiences in specific project areas. There were several questions within each of the three mission mandate areas to help provide more specific results.

Part Two of the study was designed to examine participants' attitudes about 4-H programming. The open-ended question format encouraged 4-H members to share their thoughts about the program in an open, confidential venue. Paired with the quantitative method in Part One, the second part of this project provided a complementary approach to this research question. By combining the quantitative and qualitative methods, the study created a wider scope of insight into the world of 4-H youth development. The responses served to inform 4-H staff and volunteers on the effectiveness of the mission mandates in the region. Further, the survey gathered members' candid, qualitative input on 4-H programming, which would prove invaluable to 4-H decision-makers.

Background

4-H in Minnesota has experienced a slight decline in enrollment numbers throughout the past decade. Between 2003 and 2010, Minnesota 4-H enrollment numbers decreased by 13,000 youth, or approximately 9 percent. 4-H's historical associations with agriculture may impede its appeal to an increasingly urbanized Minnesota, despite 2010 statistics showing that 19 percent of 4-H members live on a farm as their primary residence (University of MN Extension, 2012). In addition, the increasingly competitive OST environment has placed the child's and family's time at a premium.

The mission mandates are one strategy that national 4-H leaders are using to adapt programming for a modern audience. Established in 2008, the 4-H mission mandates intend to "reiterate the founding purposes of Extension (e.g., community leadership, quality of life, and technology transfer) in the context of 21st century challenges and opportunities" (USDA, 2011, p. 1). Since the mission mandates are a relatively new initiative, they have not yet been the subject of much academic attention. There has been, however, much research conducted on the individual 4-H project areas which comprise the mission mandates. Jamison (2008) links the increase in 4-H science programming to a nationwide trend in STEM training and careers. Ivey and Quam (2009) analyzed STEM's importance in promoting critical-thinking skills in 4-H members at a science camp. Further, Winter (2008) analyzed a New York 4-H health-project initiative, framing it as a shift towards issue-based teaching, versus whole-child education. However, these examples examine 4-H project areas from the curricular perspective, rather than from the *member's* point of view.

By approaching 4-H through the lens of the mission mandates, this study provided new insight into a relatively unexplored research topic. The survey challenged participants to think about their experiences in the mission mandates categories (science, citizenship, and healthy living) through questions based upon individual project areas within each category. This study design enables staff to interpret inequities among different project areas, rather than cataloguing all responses under a

broader category. This research aimed to measure the mandates' impact upon 4-H members in one Minnesota region.

Assumptions

As 4-H Program Coordinator in Wright County, the researcher works with 4-H members and families every day. In this role, the researcher works to address numerous sets of expectations: those of National 4-H; Minnesota 4-H; county 4-H volunteers; county commissioners; other local stakeholders; and, of course, county 4-H youth members and their families. These expectations often overlap, and sometimes conflict with one another, which can create additional work and confusion. For these reasons, the researcher is interested in further defining the 4-H mission mandates as a cohesive message for Wright County and the broader St. Cloud region. Research around these project areas within the region can lend concrete direction and vision to the local 4-H program.

The researcher's role as 4-H Program Coordinator is admittedly a large interest in the 4-H program's future and its wellbeing in Wright County; it is in the researcher's best interest that stakeholders and the general public perceive the program in a positive light. However, the online survey format serves to enhance the environment of anonymity. Accurate, unbiased research will best inform youth workers and improve the 4-H program.

Limitations

While the study created an exploration of 4-H members' experience with each of the mission mandates, it inevitably worked within some limitations. The online format is one such restriction. All potential survey respondents received an e-mail, with a link to complete the online survey. Most 4-H families in the selected counties have access to e-mail; however, this is not true for 100 percent of the families. Thus, 4-H members without access to e-mail were not represented in this study. Similarly, those members with limited e-mail access, or those who may have experienced technical issues during the survey period, also would have not participated in the study. Further, eligible 4-H members who

received the survey invitation e-mail may have ignored it or deleted it without opening it, depending on their interest. These and other variables may have served as limitations to the study's scope. Because of this, this study's results may not be a complete nor a representative view of the intended population.

Further, this study is also limited insofar as the participants' understanding of 4-H project areas as defined by the study. While many members may have consciously participated in a project area by entering a project at the county fair, for example, they may have also participated unknowingly in other 4-H learning opportunities. For example, the Wright County 4-H Communication Contest has several themes around the 4-H citizenship project; however, these links are not clearly defined as *citizenship*, so 4-H members may not understand the link. The study's language was intentional in describing how members might have experienced each project area; participants' responses may, however, be subjective to their particular experience. In interpreting these data, one must be cautious to draw broad conclusions or generalizations about 4-H participation; this is one study, conducted in a defined time period. Despite these limitations, the study does provide an analysis of participating 4-H members' experiences and attitudes in the five-county Region Six.

Definitions

The study features several terms, phrases, and abbreviations that require definition. See the list below for further explanation:

- 4-H member: A youth who is enrolled in a county's 4-H youth development program. Youth in grades K – 13 (one year beyond high school graduation) are eligible to enroll in 4-H.
- Out-of-school time (OST): Term and abbreviation referring to youth leisure time in which they may choose to participate in extracurricular activities.
- 4-H mission mandates: Three content areas which reflect 4-H Youth Development's educational principles. The three 4-H mission mandates are: citizenship, healthy living, and science, or STEM (USDA 2011).

- STEM: Abbreviation for the content areas of science, technology, engineering, and mathematics.

Conclusion

This study intends to explore 4-H members' experience with and attitudes towards the 4-H mission mandates and their role within Region Six. Little research has been conducted around the mission mandates' impact on 4-H programming, especially from the perspective of the youth 4-H member. The mission mandates have been in place long enough to allow researchers to conduct effective analysis and draw accurate conclusions. Data from this research study will inform 4-H adult volunteers and staff on members' experiences, and will encourage them to adapt programming to fit youth preferences and needs. Though particular to the central region, this study will act as a case study for 4-H programs around greater Minnesota and the U.S. While this study will only be as effective as its participants' comprehension of its questions, it does provide an unprecedented opportunity for 4-H members to provide feedback on their youth-development program.

CHAPTER TWO

Literature Review

One of the largest youth development programs in the nation, 4-H has been an institution in rural America for more than 100 years. The program initially focused on introducing new agricultural methods to rural youth and, over the years, became associated with livestock shows and county fairs. While many 4-H youth still participate in agricultural project areas, fewer of them live on farms or in rural settings. What's more, today's youth have seemingly infinite extracurricular options and, in an increasingly urbanizing society, 4-H has evolved in order to accommodate its audience's needs. From establishing new mission mandates to partnering with nontraditional organizations, 4-H is reassessing its educational focus and goals.

However, the organization must differentiate between its own goals and those of its membership. Minnesota 4-H is among those programs reevaluating its priorities. The organization has been experiencing a slight decline in participation numbers over the past decade. In 2000, approximately 144,000 youth participated in 4-H activities throughout the year; however, by 2010, this number had decreased to approximately 131,000 youth. An analysis of Minnesota 4-H member demographics provides additional insight: 2003 figures show that 19 percent of 4-H youth live on a farm; 56 percent live in a rural area or in a town with fewer than 50,000 people; and 24 percent live in a suburb or city greater than 50,000 people. Comparatively, 2010 statistics show that 17 percent of 4-H youth live on farms; 27 percent live in a rural area or in a town with fewer than 50,000 residents; and 15 percent reside in a suburb or city greater than 50,000 people (University of MN Extension, 2014). These figures demonstrate a decrease in farm-youth enrollment, which mirrors the diminishing number of farms and farm youth state-wide. Yet, the figures also show a decrease in suburban and urban enrollment numbers, which is discouraging, given the large number of eligible youth in those locations.

By effectively promoting its program and mission, 4-H may be able to better weather the ever-impending pressures it faces from budget cuts and increasing out-of-school-time (OST) competition. Some key themes arose in an assessment of the current research on 4-H youth development: 4-H's agrarian background; its connections to adolescent development systems and experiential education; 4-H's evolving curricula; the program's correlations with positive youth development (PYD); and the increasingly important role of diverse partnerships. By examining the existing research on 4-H's goals and its adaptation to today's audiences, this literature review will generate some ideas about how Minnesota 4-H can remain viable in the field of youth development.

Agrarian Roots

While the organization is always seeking to evolve and attract new audiences, 4-H remains a tenet of American rural society, largely thanks to its agricultural beginnings. Ironically enough, this youth organization began as an indirect way to educate adults. The U.S. Department of Agriculture (USDA) (2014) chronicles the program's history in a timeline. In the late 1800's, scientists found that many farmers were reluctant to adopt the latest findings from university agriculture researchers. They did find, however, that rural *youth* were interested in new agricultural practices and methods. Counties in Ohio and Minnesota formed the first after-school clubs in 1902, which focused on agricultural issues and activities. By engaging youth in these clubs, public university staff hoped to use hands-on learning as a way to inspire progressive change in rural America. These early "corn clubs" and "tomato clubs," as they were known, placed an early emphasis on experiential learning, an idea that would evolve throughout the twentieth century.

The after-school clubs were more than just crop and sewing projects, however. From their very origins, 4-H clubs had a connection with land-grant universities. The USDA (2014) details how, in 1914, Congress passed the Smith-Lever Act, which created the Cooperative Extension System in public universities. As part of this act, university and county staff began to oversee the many 4-H programs

that had been forming across the U.S. Extension programs still form the majority of financial and administrative support for 4-H programs today, including the organization's continuing connections to research and application.

The Study of Adolescence and Positive Youth Development

The 4-H organization's enduring links to research continue to distinguish it from other OST opportunities. By incorporating the latest research on individual project areas into its curricula, 4-H provides its families with up-to-date learning tools. Yet, in recent years, university and extension professionals have also been studying the field of *adolescence* in order to further refine 4-H's approach to programming. Lerner (2005) discusses how 4-H and other organizations have embraced the positive youth development (PYD) perspective and whole-child learning in their approach to youth programming. According to Lerner, the study of adolescence didn't really exist prior to 1900, until G. Stanley Hall (1904) began studying those humans in their second decade of life – the stage we now call *adolescence*. Hall characterized this life stage as one wrought with strife and turmoil, and a time of stress for young people. Lerner (2005) summarizes Hall (1904) and other early researchers' studies as viewing adolescents as having a deficit that needed to be fixed; Lerner claims that this viewpoint prevailed for much of the first half of the 20th century. This perception likely played into early 4-H programming. University staff saw rural America at a deficit; they sought to fix this problem by educating the young people.

As the century progressed, so did researchers' perceptions of young people. Lerner (2005) describes how, by the 1960s, most scholars had a different notion of adolescents – one that was relatively calm and that emphasized shared values with their parents. Organizations like the Society for the Study of Adolescence (SRA) and the Society for Adolescent Medicine (SAM), both of which formed in the 1980s, helped to create research that focused on adolescent development as an emerging field of research. Still, according to Lerner, researchers from this era continued to focus on negative aspects of

youth, rather than their attributes. These development scientists defined PYD as merely the absence of negative behavior.

The 1990s marked the beginning of many changes for both 4-H and the study of adolescence. According to Lerner (2005), youth development scholars embraced developmental systems as a research framework; that is to say they began tying their studies in adolescence to the larger (and more established) field of human development. Lerner writes that adolescence is a time of adaptation to one's surroundings; thus, researchers theorized they could better understand adolescents by studying their environment – their schools, families, and communities. In doing this, researchers began working with professionals in the youth development field to explore the notion of PYD both in theory and in practice. PYD posits that youth are resources to be developed, not problems to be managed. With the dawn of this new research framework, the USDA (2014) describes how 4-H began shifting its focus to emphasize this new strengths-based approach in its community programming. This change seems to have marked a new era for 4-H, as it began the transition from its traditional bases (agriculture and home environment skills) to a new mission of whole-child growth and achievement.

Experiential Research and Theory

While 4-H has been expanding its notion of PYD and adolescence, it has incorporated emerging educational theory into its program, as well. 4-H has adopted the motto “learn by doing,” which exhibits links to *experience* and *experiential learning*. Kolb, Boyatzis, and Mainemelis (1999) describe the experiential learning theory (ELT) model as a four-stage process. Individuals *experience* a phenomenon, after which they *observe* or *reflect* upon it. The next step involves assimilation and distillation into *abstract concepts*, which leads to “new implications for action.” The final stage, *active testing*, examines these concepts and helps create opportunities for new experiences. Kolb & Kolb (2009) simplify these steps into four words: experiencing, reflecting, thinking, and acting. Kolb

emphasizes that ELT's principles transcend academic disciplines, serving as a holistic learning model regardless of subject matter.

4-H program designers have looked to researchers like Kolb for inspiration. Drawing on Kolb's ELT model, 4-H staff (National 4-H Council, 2007) created a process called the Experiential Learning Model (ELM) to describe how youth participate in the program. According to the ELM, youth first *experience* the project area for themselves, without instruction. Next, they *share* their impression and reaction with others. Then, youth *process* the experience through discussion and reflection. The next stage asks youth to *generalize* by relating the project to their day-to-day experiences. Finally, project participants *apply* the skills learned to their own lives. By translating academic research into common language and methods, 4-H staff members are helping their volunteers and members better understand *how* 4-H is different from other youth organizations and *why* the program has enjoyed such great success.

4-H's Evolving Curricula

Though 4-H has enjoyed much success in the past, the organization faces new challenges and opportunities in the 21st century. Lochner, Allen, and Blyth (2009) estimate that today's Minnesota youth have approximately 2,000 hours of free time each year – the same amount as if they had a full-time job. The researchers also found that 98 percent of Minnesota youth participated in at least one extracurricular activity during the school year. In response to this demand for *quality* extracurricular programming, 4-H is streamlining its curricular focus in numerous ways to attract new audiences. One streamlining strategy is the development of the 4-H mission mandates: citizenship, healthy living, and science, technology, engineering, and mathematics (STEM). By emphasizing these program areas, 4-H hopes to meet "21st century challenges and opportunities" (USDA, 2011).

The *science* mandate, in particular, has attracted researchers' attention. Ivey and Quam (2009) highlight a Wisconsin 4-H camp program that focuses on STEM. Working on projects in areas like

robotics, aeronautics, and computer design, youth participants “build the skills they need to thrive and be productive citizens in the 21st century.” Similarly, Jamison (2008) describes the 4-H science mandate as one way in which organizations are encouraging continued American advancements in the STEM fields. Jamison notes that 4-H currently has more than five million STEM projects or initiatives across the U.S., and it has plans to increase both the number and the type of STEM opportunities for youth and families. By intentionally transitioning its emphasis from its agricultural heritage towards new technological frontiers, 4-H is taking steps to meet society’s changing needs and shifting demographics.

Robotics has been one particularly successful STEM venture. Barker and Mahacek (2011) describe how new 4-H robotics curricula have helped to complement underfunded school science programs. Through pilot programs, 4-H researchers have found that the robotics field is a natural starting point for youth interested in STEM education. By incorporating engineering elements and real-world problem-solving scenarios into the curricula, 4-H designers have also developed links to modern career exploration.

The *healthy living* mission mandate has also garnered some attention from researchers. While exploring Cornell Cooperative Extension’s child obesity research, Winter (2008) discovered 4-H’s “Choose Health” program, a New York State-wide campaign designed to promote healthy lifestyles among young people. Working with other Cooperative Extension departments and the New York State Department of Health, New York 4-H has launched several initiatives, including: family walking challenges; healthier snacks at 4-H events; and better lunch and vending options at local schools. Campaigns like Choose Health are examples of how 4-H is shifting some of its emphasis from mere *education* to issue-based curricula, and incorporating youth participation into real-world problem scenarios.

Yet, the organization is not forgoing its agrarian background altogether. One study examined how youth learned and applied scientific principles to their 4-H animal projects. By studying 4-H’s use of

county-level rules and policies, Emo (2008) illustrated the connection between youth animal projects and broader concepts like logic, reason, and the scientific method. Illustrating relationships like this, Emo shows how 4-H's model of experiential learning instills fundamental skills and values in youth through engaging curricular content. Animal science projects remain one of 4-H's best-known learning areas; in fact, projects like Horse, Dog, Beef, and Rabbit are among the most popular Minnesota 4-H Projects (University of MN Extension, 2012).

Connection with Positive Youth Development

Besides focusing its work on innovative project areas, 4-H has recently been investigating its programming's association with instilling values in young people. According to Lerner et al. (2013), 4-H has strong correlations with the key elements of PYD. Their study, a longitudinal analysis of thousands of youth, sought to identify evidence of the "five c's" of PYD (competence, confidence, connection, character, and caring/compassion) that result in the sixth 'c' – contribution. Their findings show that 4-H members are more likely to develop healthy lifestyle habits, participate in other OST activities, and perform better academically than their non-4-H peers. Similarly, 4-H members are less likely to engage in risk behavior than non-4-H'ers (Lerner et al., 2013).

Identifying that first group of fifth-graders as Wave 1, Lerner et al. (2013) continued their study with the initial group all the way through Grade 11. Each school year represented a different "wave," and each year the researchers added more participants to the study in order to compensate for those who, for one reason or another, decided to cease participating in the study. By the end of Wave 7, the researchers had gathered data from more than 7,000 total participants, including 553 who had been involved in at least two surveys from grades 5 – 11. Funded in part by the National 4-H Council and Tufts University, this project (dubbed the "4-H Study") has already generated some buzz among 4-H communities. The national 4-H organization features the report on its website and provides a fact sheet with key messages for 4-H members, leaders, and staff. The study has great potential to become a

landmark piece of research in this field and, if used correctly, a fantastic marketing tool for the organization.

Several studies show 4-H's connection to positive character development in youth. Adolescents involved in civic activities, including 4-H, show "enhanced psychological well-being, low problem behavior, high academic engagement, and positive perceptions of parents and peers" (Ludden, 2011). Furthermore, Carter & Kotrlik (2008) found that 4-H'ers who worked as camp counselors exhibited leadership, responsibility, and problem-solving skills at a greater level than non-4-H youth. Attempting to understand why 4-H has unique impacts on its participants, Balsano et al. (2009) hypothesize that "community-based, structured...OST activities are key institutional assets linked to PYD." This holistic approach to youth programming gives 4-H an advantage over other, more skill-based OST options.

Another advantage lies in 4-H's connection to research and land-grant universities. Zeldin, Petrokubi, and MacNeil (2008) studied how 4-H state-level staff work with university professors to conduct, analyze, and apply research to youth programming. The state disseminates research findings and recommendations to county-level 4-H staff, who then incorporate it into their community programs. Through this process, 4-H strives to be the authoritative voice on youth-development issues. Few other OST organizations can compare with 4-H's strong support network and its links to the latest research.

The Rising Importance of Partnerships

Like so many other nonprofit groups, 4-H faces diverse challenges in the 21st century. Numerous articles discussed partnership strategies that could help 4-H (and other like-minded organizations) continue to thrive. In their study, McKim and Torres (2010) examined 4-H and another popular rural-youth organization, FFA. Though they have long histories of working collaboratively but independently, the two groups have many similarities – including often-overlapping membership rosters.

Other groups of researchers suggest that 4-H pursue a different type of partnership. Usinger, Breazeale, and Smith (2005) urge 4-H leaders to cultivate deeper relationships between youth and adults. These partnerships would distinguish 4-H from other organizations because they would result in the transferring of values and life-skills from adults to youth (Usinger, Breazeale, and Smith, 2005). Similarly, Arnold, Dolenc, and Wells (2008) name adult-youth links as critical elements of PYD. The authors specify that relationships between youth and non-parental adults are important in organizations like 4-H because they provide different perspectives and opportunities for youth. 4-H is one of the only OST programs to offer ongoing learning opportunities between youth and non-parental adults.

Alternatively, Jamison (2008) illustrates how some 4-H programs are benefitting from partnerships with private entities like 3M and Toyota. Beyond their obvious financial benefits, these types of corporate relationships can also usher in new ideas, including *The Power of Wind*, a wind-energy curriculum that resulted from a partnership between 4-H and the 3M Foundation. As demands increase and program budgets shrink, 4-H will likely consider future endeavors with private partners.

Keeping rising costs in mind, the organization is also looking to its human resources, namely its wide network of volunteers. Adult volunteers not only provide critical contributions to PYD, they can also help to reduce programming costs without sacrificing quality. In a study of 4-H programs in Florida, Terry, Harder, and Pracht (2011) discovered volunteers in both *direct* and *indirect* (administrative or behind-the-scenes) service roles. The researchers found that, when managed properly, volunteers had a positive “net benefit” on 4-H programs; if mismanaged, volunteers can have a negative effect on an organization. Thus, the research shows that 4-H must invest in sound volunteer training and management practices to ensure quality program delivery.

Conclusion and Research Needs

The survey of current literature in this focus area has yielded a diverse portrait of the 4-H program’s background, its current situation in Minnesota, and some new directions in which different

programs have ventured. This research is broad and touches on interrelated, yet distinct topics. While there exist many examples of the changes 4-H is making to its program, there is still a research gap in studying the desires and needs of individual 4-H members. While this chapter has outlined the 4-H mission mandates and some examples of the mandates in action, it has not explicitly shown studies of the mandates' effectiveness. The next chapter will explore 4-H members' experiences with the mission mandates. It will also look into how 4-H'ers distinguish 4-H from other OST opportunities. There is a lot of research about 4-H outcomes, but few studies ask about 4-H from the *members'* perspective.

CHAPTER THREE

Methodology

After assessing the current research and literature on the topic, a lack of research on the viewpoint from 4-H members was noted. Many studies focused on 4-H organizational goals and outcomes, but few studies asked members for their thoughts on the organization's intentions. The purpose of this research study was to compare 4-H members' perspectives with the organization's goals. This study aimed to investigate the following research question:

What are adolescent 4-H members' attitudes towards 4-H and its mission mandates?

By focusing on the *member's* perspective on 4-H priorities, insight into the 4-H youth development program can be made and steps can be taken to advance the body of literature around this organization. Ideally, this research can help 4-H professionals assess their programming to better meet members' needs.

This chapter will first describe the setting and participants studied, will next discuss the development of the survey, and will conclude with a description of the process used to gather and analyze the data.

Setting and Participants

4-H is a youth-development organization for grades K through 13, or one year past high-school graduation. This survey focused on 4-H'ers ages 14 through 19 who have held 4-H membership at least three years. 4-H'ers of this level of experience and age range generally have had enough experience with the 4-H organization to provide valid insight on 4-H programming. This study focused on 4-H'ers in Wright, Sherburne, Stearns, Benton, and Meeker counties, an area known in Minnesota 4-H as Region Six. This convenience sample features five counties that have a history of sharing staff and resources, and thus would have a greater likelihood of exhibiting cohesive results than 4-H'ers in one particular

county. Any 4-H members or other youth who did not meet the aforementioned criteria were excluded from the survey sample.

First, county 4-H program coordinators were e-mailed an initial letter inviting them to help to facilitate the study in their respective counties. The letter included a summary of the researcher's background, the purpose of the research, and a link to the survey instrument in SurveyMonkey. The 4-H program coordinators were contacted to obtain their county's 4-H enrollment records to invite potential research participants.

Next, the county 4-H program coordinators e-mailed all eligible participants in their county with a link to the survey. If minors chose to participate in the survey, they first had to have their parent/guardian provide consent; the adult did so by completing the first step in the survey – the social consent form. This form explained the purpose of the study, directions for completing the study and outlined its risks and benefits. Each participant signed the form electronically and a parent/guardian also signed the form if the survey participant was a minor (not all participants were minors). Next, the minor completed the child assent form, which explained the survey in language easy for youth to understand. After completing the necessary consent forms, the 4-H member then moved ahead to take the online survey.

The survey used a purposive sample of a particular 4-H demographic; more specifically, it intentionally targeted all 4-H'ers ages 14 to 19 who had been in 4-H for at least three years. Focusing on this particular demographic yielded the youth with the most 4-H experience and knowledge. Were this a purely random sample of *all* youth (including non-4-H youth), the data would not be as valuable, as much of the sample would have no experience in the organization.

Research Design

The anonymous survey was the most logical method of collecting data from youth participants for this particular research topic. 4-H is a relatively small community, especially in rural counties, and

the anonymous survey is the best method for gathering honest insights and feedback from 4-H youth participants. The researcher hypothesized that teenage 4-H members would also be more likely to provide independent, candid answers via a private survey they complete online, versus a written questionnaire they might complete at a 4-H event around friends. An online survey, cross-sectional in design, would produce the most results in the least amount of time. The survey was also relatively brief, in order to encourage participant completion.

Instrument

The original survey instrument was based around the 4-H mission mandates: three content areas on which the national 4-H organization has chosen to focus its programming. Further, 4-H has identified several core areas within each mission mandate (USDA, 2011). The first part of the survey asked participants to rank the effectiveness of these core areas on a Likert scale, according to their experience. With Creswell's (2009) notion of *validity* in mind, the survey also included an option ("no known experience") for each question, for those participants who did not have any experience in a particular core area. Offering that option can help reduce the amount of guesses, or random answers.

Part II asked participants to elaborate on their thoughts about 4-H's priorities in an open-ended forum. This mixed-method approach allowed for the collection of a diverse data set in a short amount of time. The instrument blended two methods: a quantitative method, using a Likert scale, and a qualitative method, using open-ended response questions. By collecting data using two different methods, the survey captured the strengths of each method – the ability to generalize the Likert scale rankings, as well as the power to identify broader themes in the open-ended responses. Readers can view the entire survey instrument in Appendix A.

Data Gathering & Analysis

In assessing the raw data, Creswell (2009) recommended six data-analysis steps. First, upon receiving the completed online surveys via SurveyMonkey's tool, response was calculated by comparing

the number of completed surveys to the number of 4-H members solicited for survey participation. Participating 4-H program coordinators recorded the number of members who receive the e-mailed link to the study. Part One analysis included calculating the means and ranges of Likert scores for each core area. These figures provided an understanding of how 4-H members' experiences in the study area aligned with the 4-H mission mandates. By determining the mean and range of scores in each core area, researchers and readers were able to analyze the effectiveness of 4-H programming in each area. Likewise, the means and ranges of Likert scores for each mission mandate were calculated by adding together the core area scores within each mission mandate. That approach yielded analysis on at least two different levels: topic-oriented, and concept-oriented. For example, if it were found that few 4-H members report experience with STEM programming, then the researcher could make recommendations that 4-H staff increase their emphasis on that particular mission mandate. However, there may be a particular core area within STEM that trends differently from the mission mandate as a whole; this multi-faceted analysis helped to draw more accurate conclusions and can be used to make recommendations. Furthermore, these data have great potential to help 4-H youth development staff understand the areas in which they are succeeding and the areas which need more attention.

Part Two analysis included evaluating the responses for recurring words, phrases, or topics which were indicative of broader themes. For example, several participants mentioned specific projects like animal science and leadership in response to question #3 ("Why do you participate in 4-H?"). These responses were then coded as important to 4-H's success. Similarly, since no respondents mentioned the bicycle project, for example, then that project area was coded as less important to 4-H in the survey area.

After analyzing the Part Two responses as a whole, the researcher made recommendations in the conclusion about which project areas are succeeding and which project areas need improvement. Allowing room for local differences and error, the conclusions identified trends in participants'

responses. Local 4-H staff can use these results to guide future county and/or regional efforts. Chapter Four and Chapter Five provide in-depth analysis and recommendations based on the study's results.

CHAPTER FOUR

Results and Discussion

This study examined the 4-H mission mandates' effectiveness in Region Six, a five-county region in the St. Cloud area consisting of Benton, Meeker, Sherburne, Stearns, and Wright County. The study examined 4-H members' experiences with the three 4-H mission mandates (STEM, citizenship, and healthy living), asking participants to rate their experiences in 17 project areas on a Likert scale. In the study's second part, youth shared their attitudes towards 4-H in four open-ended questions. 4-H youth ages 14 – 19 in Region Six, who had at least three years of 4-H experience were invited to participate in the study. In all, 95 of approximately 400 potential participants (23.75%) completed the survey in an online format via SurveyMonkey.

This chapter analyzed the survey results, beginning with demographic information on participants, then the quantitative data of Part One, and continuing to the qualitative data of Part Two. Part One results will include graphs of survey results for particular project areas, while Part Two results will feature recurring phrases and themes, as well as direct quotations from participants. The data will provide a complementary analysis of the current 4-H experience in the region. These data will provide valuable insight for 4-H staff and volunteers, as they consider future direction for their program.

Results

Demographics.

Ninety-five youth participated in the survey. The respondents had a wide variety of ages, depicted in Figure 4.01. This age range provided a diverse pool of respondents across ages, with the most common ages skewing towards the younger end of the spectrum: 14 and 15. In addition, 61.45% of participants were female, while 38.55% were male. These figures are consistent with the region's demographics as cited by Landrieu, Grant, Boyce, and Larson Nipplot (2010), where they reported the region's overall 4-H membership in 2008-2009 was 58% female and 42% male. The final demographic

studied, years of 4-H participation, is depicted in Figure 4.02. The most common results were eight years and seven years, although the responses vary across the spectrum.

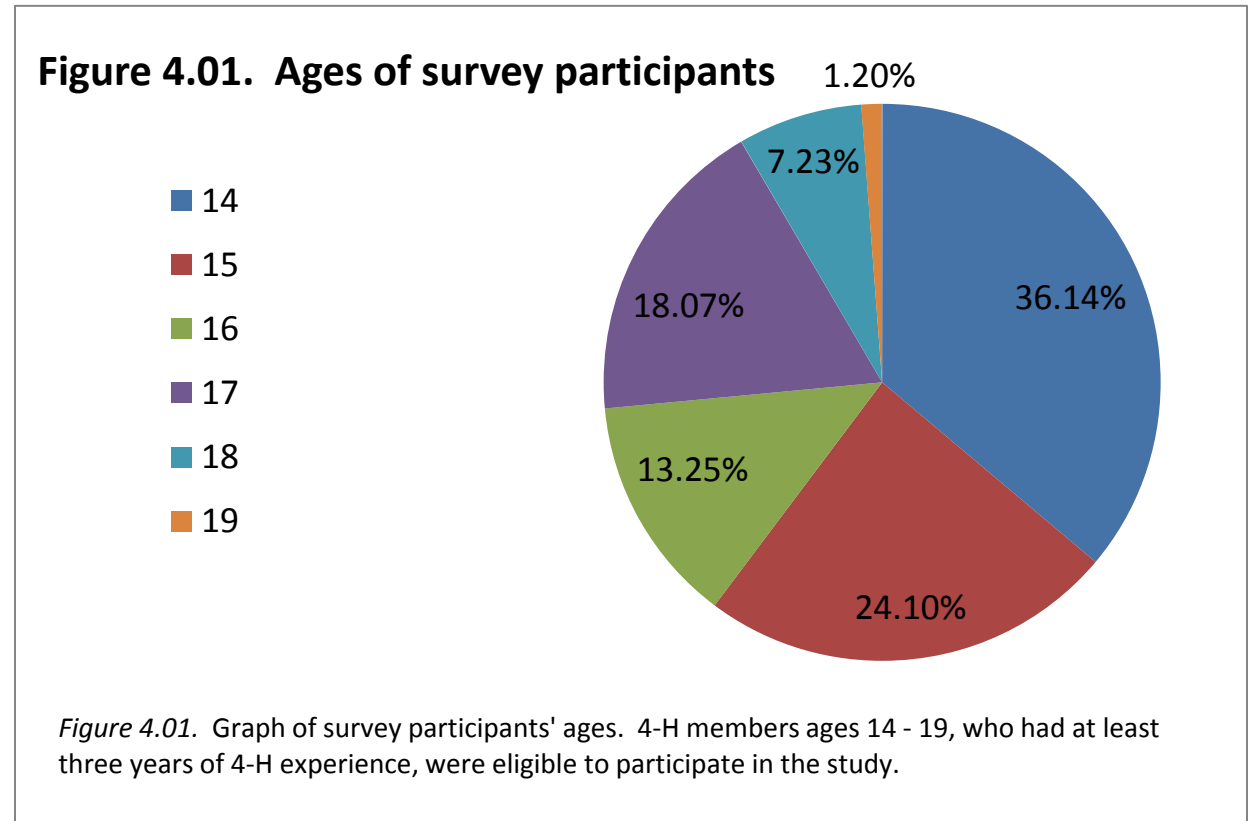


Figure 4.02. Participants' years of 4-H experience

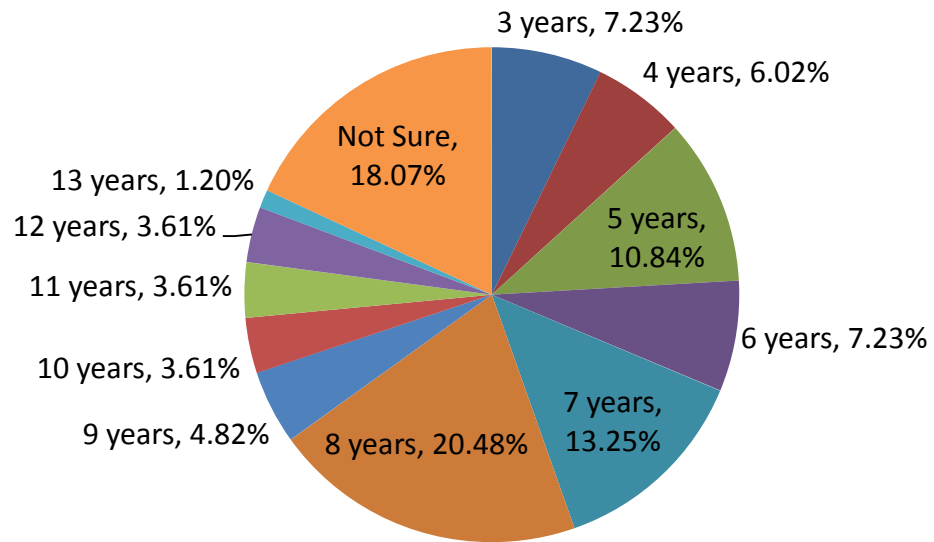


Figure 4.02. This graph illustrates the number of years that participants reported holding 4-H membership. 4-H members with at least three years of participation were eligible to participate in the study.

4-H mission mandates.

The first part of the survey asked participants to rate their experience on a five-part Likert scale in 17 different project areas. Table 4.01 displays this section’s data by listing the number of responses for each Likert scale number in each project area. The table also shows the number of 4-H’ers who reported no known experience (NKE) in each project area. The top three project areas in which 4-H’ers reported having experience were: service (citizenship mandate), leadership (citizenship mandate), and prevention of tobacco, alcohol, and other drug use (healthy living mandate). The three areas in which 4-H’ers reported NKE most frequently were: citizenship (citizenship mandate), engineering (STEM mandate), and consumer science (STEM mandate).

Table 4.01

Participants' Experience in Selected 4-H Project Areas

Project Area	1 – Not effective	2 – Less effective	3 – Somewhat effective	4 – More effective	5 – Very effective	Average response	No known experience
Prevention of Substance Use	4	0	1	13	49	4.54	10
Service	1	2	7	18	48	4.45	0
Leadership	0	1	8	22	40	4.42	6
Animal Science & Agriculture	2	3	9	13	31	4.17	19
Prevention of Injuries Part I – Safe Lifestyle	3	1	15	19	32	4.09	5
Prevention of Injuries Part II – Identify risk factors	2	5	8	26	28	4.06	8
Social-Emotional Health	2	5	10	21	29	4.04	10
Life Science	1	2	18	15	27	4.03	13
Nutrition	3	7	5	24	25	3.95	13
Applied Mathematics	2	4	14	22	23	3.92	12
Fitness	2	6	10	25	16	3.8	18
Civic Engagement	2	3	16	30	14	3.78	13
Consumer Science	1	3	17	20	14	3.78	22
Environmental Science & Natural Resources	2	7	12	21	18	3.77	14
Technology	1	6	18	23	17	3.75	12
Citizenship	4	10	9	6	15	3.41	33
Engineering	6	9	12	14	8	3.18	28
Civic Education	3	14	21	13	8	3.15	17

Note. Data displayed are by number of youth. The average response was calculated by finding the mean of total youth responding to that particular question, minus the youth who chose No known experience.

Attitudes towards 4-H.

This section asked 4-H members to share their opinions on different aspects of the program in a qualitative, open-ended forum. Participants answered four questions focused around their thoughts

and experiences in 4-H, as well as their ideas for improving the organization. The results are shared below, separated by question.

Additional areas for 4-H focus.

This question asked participants for their input on additional focus areas for 4-H. Members' responses were analyzed and coded into appropriate Minnesota 4-H project areas. The most common area mentioned was Animal Science & Agriculture, which was identified by 11 participants. Examples of responses coded into this project area included: "More on the farming and stuff"; "Probably more animal topics. Maybe even nature categories in the photography project. I think that this would really speed/help along this project"; and "I would like to see 4-H focus more on agriculture and animal science...there is so much more we could do. With animal records and clinics we could go more in depth with our livestock projects." The next most popular project area, with 10 occurrences, was science/STEM. Examples of responses coded into this area included: "The aerospace project, wood shop, and other engineering projects"; "Focus more on science projects, such as human anatomy or animals"; and "Technology skills, science, business meeting...more skills that are more relevant in the modern job pool." Table 4.02 displays the number of responses coded into their particular project or learning areas.

Table 4.02

Suggestions for additional focus areas for 4-H

Project area	Number of responses
Agriculture & Animal Science	11
STEM	10
Youth Leadership	10
Shooting Sports & Wildlife	7
Photography	3
Nutrition	3
Health	3
Safety	3
Diversity/Global Connections	3
Cloverbuds	3
Consumer Education	3

Note. This table displays participants' coded responses to the question *What additional areas would you like to see 4-H focus on in the future?* Some responses featured more than one project area, and thus were counted for each of those corresponding categories. Other responses were not coded due to irrelevance.

Setting 4-H apart from other OST opportunities.

This question challenged survey participants to consider how 4-H can distinguish itself from other extracurricular options. Members' responses were coded and organized into 14 broader categories. The responses and categories are displayed in Table 4.03. The most common category was Wide-Audience Appeal, which had nine responses. Examples of responses coded into Wide-Audience Appeal included: "Whole family can go"; "You can do practically anything you want for a project at the fair and there are many fun activities"; and "It is already different from other OST activities because it has something for anyone." Another common category was Community Service, which had seven responses. Some examples of responses coded into Community Service included: "4-H can distinguish itself from OST activities by offering skills that kids can use in real life"; "Clothing (ambie shirts) Meetings/activities (group), Community Service, teaching real world problems"; and "In 4-H you are taught many life skills like leadership, responsibility, accountability..."

Table 4.03

Ways 4-H can distinguish itself from other extracurricular offerings

Strategy	Number of responses
Wide-Audience Appeal	9
Leadership	7
Community Service	7
Fun	5
Real-World Skills	4
Self-Esteem	2
STEM	2
Less livestock	2
Advertise benefits	2

Note: This table displays participants' coded responses to the question: *How can 4-H distinguish itself from other out-of-school-time (OST) activities?* Some responses featured more than one strategy, and thus were counted for each of those corresponding strategies. Other responses were not coded due to irrelevance.

Motives for participating in 4-H.

This question asked participants their motives for 4-H participation. Responses were collected and coded into 11 broader categories. Two categories tied for most-frequent, with 20 responses each: "Fun/Social Engagement", and "New Learning Opportunities." Some examples of responses coded into "Fun/Social Engagement" included: "Because I love it, it's super fun, I meet new people, have new experiences, and get to participate in so much!"; "The people, the opportunities, everything. Exchange trips, new friends, etc."; and "It's a fun thing to do. I'm always looking forward to 4-H events. Most of my friends are in 4-H." Examples of New Learning Opportunities included: "Even doing fair projects lets me learn about things that I wouldn't really get to do in school"; "It allows me to work with difficult people and work with situations that don't go well"; and "I learn how to communicate efficiently and make decisions." Table 4.04 summarizes these data by area of motivation.

Table 4.04

Motives for youth 4-H participation

Motive	Responses
Fun/Social Engagement	20
New Learning Opportunities	20
Leadership	18
Animal Projects	12
Parental Expectations/Family Tradition	9
Resume/College Prep	9
County and/or State Fair	8
Public Speaking Skills	4
Community Service Opportunities	3
Camp	2

Note. This table displays participants' coded responses to the question: *Why do you participate in 4-H?*

Some responses featured more than one motive, and thus were counted for each of those corresponding motives. Other responses were not coded due to irrelevance.

4-H benefits.

This question asked participants about the benefits they receive from 4-H participation.

Responses were coded and categorized into nine broader categories. The responses and categories are summarized in Table 4.05. The most common category was "Leadership and Life Skills", which had 49 responses. Examples of responses in this category included: "Leadership skills, Public Speaking"; "Interview skills, friends of a lifetime, travel the country, unforgettable memories...skills that I will use for the rest of my life."; "Learning how to care for animals, create and present projects to audiences, and using leadership skills in real world situations."; and "Communication skills, leadership skills, handling money (club treasurer), friendship, skills with animals, organizational skills." The next-most popular response was "Friends and New People", which had 23 responses. Examples from this category included: "Having fun with friends. Learning. Love going to the fair."; "New friends. A chance to be a mentor. Leadership."; and "[4-H] has given me the ability to make connections with other 4-H'ers in my classes here in college since we all have 4-H in common."

Table 4.05

Benefits from 4-H participation

Benefit	Responses
Leadership and Life Skills	49
Friends and New People	28
Animal Science	13
College Credit/Resume-Building	9
Community Service	6
Sense of Belonging	2
Fair participation	2
STEM	1

Note. This table displays participants' coded responses to the question: *What benefits do you gain from 4-H participation?* Some responses featured more than one benefit, and thus were counted for each of those corresponding benefits. Other responses were not coded due to irrelevance.

Summary.

These data provide a one-time snapshot of the 4-H experience in a particular Minnesota region. However, the results may be indicative of larger trends throughout Minnesota 4-H. According to these results, 4-H youth are identifying with projects like animal science, STEM, and community service. They look forward to the social and skill-building opportunities that the organization provides. They have created positive associations between 4-H and elements like fun, family, and leadership. Most of all, these 4-H youth exhibit an investment in the program and they are eager to share their ideas for improving the 4-H experience.

Discussion

This study intended to identify the region's strengths and weaknesses in its 4-H youth development program by conducting a survey of involved 4-H members. By framing questions around the 4-H mission mandates, the study's Part One created a tangible, measurable method of assessing the 4-H experience among members. No known formal research has been conducted on the mission mandates' impact on 4-H members. This section analyzes the results in each of the three mission mandate areas, ending with a synthesis of the data.

Citizenship.

The citizenship mandate covered five project areas, including: civic engagement; service; civic education; citizenship; and leadership. The two areas with the highest number of participants responding 'very effective' were service (63.16%) and leadership (51.95%). These results are consistent with the findings in Lerner, et al. (2013), which showed that 4-H members in grades 7 – 12 are more likely to contribute to their communities. Many 4-H members in the region participate in community service projects on the club and/or county level; leadership opportunities are also very well defined, including club officer positions, county ambassador programs, and more. Interestingly, no participants reported NKE for the service project, a statistic that suggests members commonly associate service with their 4-H experience. Service was the only project area in this study that had a NKE response rate of zero.

Areas within civic education include: government principles, processes, and structure; personal roles and responsibilities; history; and cultural heritage. The citizenship mandate project area with the lowest-ranking 'very effective' scores was civic education (10.53%). This low rate of reported experience, along with the fact that 22.37% of participants answered NKE in this project area, suggests that 4-H members do not feel they are receiving civic education. Similarly, 42.86% of participants reported NKE for the citizenship project. This runs counter to Lerner, et al. (2013), which suggests that 4-H participation indicates higher levels of civic engagement. However, the wording of this question may have caused participants to assume that they had not experienced civic education because they had never taken a citizenship project to the county fair; exhibiting a project at the county fair is arguably the most visible method of participating in any particular project area.

Healthy living.

The healthy living mandate covered six project areas, including: nutrition; fitness; social-emotional health; prevention of injuries; safety risk factors; and prevention of tobacco, alcohol, and

other drug use. This mandate area had the highest across-the-board combined ratings of 'very effective' and 'more effective.' The highest-rated healthy living project area was prevention of tobacco, alcohol, and other drug use, to which 62 members (80.52%) answered 'very effective' or 'more effective.' This high rate loosely correlates with Schwartz, et al. (2010), who identified an inverse relationship between positive youth development (PYD) and lower rates of tobacco and illegal drug use among youth; young people who had higher levels of PYD were less likely to begin using alcohol and/or other illegal drugs. However, the authors did not find a correlation between PYD and lower rates of alcohol use among all youth.

The second-highest-rated project area was safety risk factors, to which 54 members (70.13%) answered 'very effective' or 'more effective.' Following closely behind safety risk factors was prevention of injuries (68%); social-emotional health (64.93%); and nutrition (63.64%). Table 4.01 shows members' experience with 4-H healthy living projects. The mean percentage of 4-H members answering 'very effective' or 'more effective' to healthy living project areas was 66.7%, which was the highest of the three mandate areas. This positive correlation suggests that 4-H'ers associate health, nutrition, and safety with their 4-H experience. Winter (2008) found that a 4-H walking initiative encouraged healthy lifestyle choices among New York 4-H members. This and other programs may be one reason why healthy living ranked so high among study participants. As health and nutrition issues like childhood obesity continue to receive attention, 4-H could use this positive association to promote its organization to new audiences.

STEM.

The STEM mandate included seven project areas: animal science and agriculture; applied mathematics; consumer science; engineering; environmental science & natural resources; life science; and technology. Table 4.01 illustrates members' experiences in 4-H STEM projects. The STEM project area that received the highest ratings in the 'very effective' and 'more effective' categories was applied

mathematics (45 members, or 58.44%), with animal science and agriculture in second place (44 members, or 57.14%). It should be noted, however, that participants reported having the least amount of experience in STEM mandate projects, when compared to citizenship and healthy living. STEM mandate projects also had the highest average rate of NKE responses of the three mandates. These figures, combined with study participants' desire for more STEM opportunities (as noted in Question 24) are strong indicators of the unfulfilled desire for 4-H STEM programming in the region. Lerner et al. (2013) found that 4-H members were more likely to receive STEM experience than youth in other OST settings. If this is the case, then perhaps the participants in this study see 4-H as the best place to experience STEM opportunities. Jamison (2008) describes 4-H's plans to expand its STEM efforts nationwide by 2013; this study suggests that Region 6 participants are still not receiving enough STEM experience. These data indicate that Region 6 may be a strong potential pilot site for 4-H STEM initiatives.

Engineering was the STEM project area with the least amount of member experience. Only 22 members (28.57%) answered 'very effective' or 'more effective' to the engineering question, while 28 members (36.36%) answered NKE for engineering. These statistics do not mesh well with Lerner et al. (2013), who found that 4-H boys were more likely to seek careers in engineering and computer technology. These statistics illustrate the demand for more 4-H engineering initiatives; however, 4-H staff and volunteers may not feel as prepared to lead engineering programs, compared to more traditional 4-H offerings, because of relative inexperience. Minnesota 4-H leaders must first offer proper training to staff and volunteers if they want to succeed in STEM. Increasing the number of engineering and other STEM opportunities is also a direct strategy to provide practical skills for application in education and the working world. Additionally, 4-H members' need for practical life skills was a recurring theme in the responses to Part Two; STEM presents a clear avenue by which 4-H can deliver those skills.

Summary

The results of this study present a current picture of 4-H members' perspectives and experiences in Region 6. The 4-H members who participated in the study are receiving many opportunities in healthy living and citizenship; these statistics are consistent with the findings of Lerner et al. (2013), whose 4-H Study of Positive Youth Development identifies many links between PYD and civic engagement and health. However, the study also identified a lack of STEM experience in Region 6, which echoes members' expressed desire for more STEM programming. Part Two of the study collected 4-H members' suggestions for the program; common suggestions confirm the results in Part One: more STEM projects; increase opportunities for learning practical skills; more animal science projects; etc. Chapter Five will provide more insight, and some recommendations for using these data to improve the Region Six 4-H experience.

CHAPTER FIVE

Summary and Conclusions

This study captured Region Six 4-H members' attitudes and experiences from December 2013 through February 2014. While there have been innumerable studies on or about 4-H members and the program's impact, little research has focused directly on improving the overall experience in a particular geographical region. By focusing on youth with at least three years of experience in their county 4-H program, this study gathered meaningful, accurate data based on participant input that can help to guide the region's direction. Moreover, the results of this study measure the mission mandates' effectiveness in the region, which serve as common metrics by which counties can assess their 4-H programs.

Educational Implications

Results from this study have immense potential for educational impact in Region Six and beyond. This study differs from other well-known 4-H Youth Development research, in that its data is particular to a relatively small geographical region; however, the survey instrument is easily adaptable for use in other regions. Two factors make this an attractive study for replication in other 4-H programs: the survey is straightforward and simple; and little formal research has been conducted on the 4-H mission mandates. It is the researcher's hope that 4-H professionals will consider leading this initiative in their respective regions; the occurrence of many individual studies could lead to a large-scale initiative on the state or national level that would provide important feedback about the 4-H participants' experiences with and perceptions of the 4-H mission mandates.

Part One of the survey examined 4-H members' opinions on the mission mandates' effectiveness. Little research has been conducted locally on the mandates' impact since their introduction in 2008. These data demonstrate the region's progress to date and serve as a gauge by which Region Six counties can assess their members' experiences. These data also provide 4-H leaders

with a number of potential avenues for action. These data show that 4-H members have strong experience in project areas like community service, animal science, and health. These are longtime 4-H project areas that carry many resources, including: trained staff and volunteers; available curricula; and existing partnerships. It would be foolish to abandon the organization's long-standing and established presence in these project areas. Rather, 4-H leaders should capitalize on these strengths and work to make even more improvements to the well known project areas.

Meanwhile, Minnesota 4-H should create a strategic plan for incorporating new project areas like STEM into existing programming. This initiative must include: staff training, volunteer and partner recruitment, curriculum development, and resource allocation. The introduction of STEM to 4-H should not be a stand-alone venture. Rather, 4-H staff should incorporate STEM principles and processes into already-existing 4-H projects like animal science and food and nutrition. This approach will create a more natural transition for 4-H staff and program participants.

Part Two of the survey provides more opportunities for educational impact in Region Six and beyond. Once again, this part of the survey was designed for practical application in the Minnesota 4-H program; 4-H researchers and staff can easily adapt these questions for use in their own regions. Each of the four questions in Part Two speak to different aspects of 4-H programming; the initial reaction by staff, regardless of question, might be to directly accommodate for common responses. For example, Question 24 asked participants about potential 4-H project areas; the most popular answers included agriculture, animal science, and STEM. Region Six staff should acknowledge this demand and create more learning opportunities in those fields. If 4-H leaders wanted to study member motivation, they might look at participants' responses to Question 26, which asked youth why they participate in 4-H programming. Common responses included: fun; learning opportunities; friends; and confidence/leadership. 4-H staff interpreting these results should alter their volunteer-training plans to incorporate these elements, ensuring their presence in the county's 4-H program.

Staff must also take the opportunity to interpret these results to achieve desired outcomes in their own counties, preferably working with youth and adult volunteers and other county stakeholders to create a more diverse perspective. The survey results provide excellent evidence for demonstrating need to potential donors and partners. Minnesota's 4-H program is home to many creative minds; the potential for action based on this study's results is boundless.

Recommendations for Future Research

This study has many strong points, but it also has some unmet potential. One recommendation is that future research include 4-H members younger than 14. Many members expressed a desire to participate in the survey; however, they did not meet the age criteria. The participation numbers could have been much higher if the survey had included younger members. While researchers might expect a certain maturity from 14-year-olds, they could also look to 12- and 13-year-olds with 4-H experience. This becomes increasingly important as more and more extracurricular activities compete for youth time.

Future researchers might also consider administering this survey in both print and online forms. The online survey was very simple and functioned well, but it did not yield many responses overall. 4-H youth respond well to personal invitations, which could be achieved through club visits, attending youth-leader activities, etc. Staff conducting the research would have to inform parents before the event, so parents could be present to sign the required consent forms. Youth and their families may also perform better on the survey if a 4-H professional is there to discuss the study's goals and intentions. This approach would, however, require more staff time, because staff would have to manually enter the survey responses for analysis.

One final recommendation for future research involves examining staff awareness of the 4-H mission mandates. The initiative can only perform as well as 4-H professionals are prepared to foster its implementation. Thus, staff preparedness may affect the extent of 4-H members' experiences with each

particular mandate. In addition, future researchers might compare how different states have prioritized the mission mandate initiative in their 4-H program's plan of work. Since 4-H program priorities differ from state to state, researchers might identify significant variations among different states in their progress on this initiative. These researchers could initiate networking opportunities among states to assist each other with adopting the mission mandates. As youth development scholars conduct more research on the mission mandates, they will likely identify even more potential areas of research based on these areas and their characteristics.

Conclusions

As 4-H reassesses its priorities for serving a more modern audience, 4-H scholars are exploring different approaches to youth development. This study has started an exploration of one such approach, the 4-H mission mandates. By analyzing the mandates' effectiveness in one Minnesota 4-H region, the study paves the way for more staff to research the mandates' performance in their own regions. In addition, this research provides candid insight into 4-H members' attitudes about their motives for participation in the organization. It is the researcher's hope that this study provides clear, easy-to-follow guidelines for future research in Minnesota 4-H and beyond. Additional research will help the program thrive in a changing society by developing an even more consistent approach to youth development.

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Appendix A
Survey Instrument

Part I

Age:

Gender:

Years in 4-H (including Cloverbud years):

Please rate your experience on the effectiveness of 4-H programming in the following areas: (1= not effective; 3 = somewhat effective; 5 = very effective). Please rate only those areas in which you feel you have direct 4-H experience; if you have no experience in a particular area, please circle “no known experience.”

CITIZENSHIP

1. Civic Engagement (voice, advocacy, activism): I have experience working with others in my 4-H community to address issues affecting our community.

Not effective	Somewhat effective	Very effective			
1	2	3	4	5	No known experience

2. Service (community service, service learning, community youth development): I have participated in 4-H projects and/or activities that helped others in my community.

Not effective	Somewhat effective	Very effective			
1	2	3	4	5	No known experience

3. *Civic Education (government principles, processes, and structure, personal roles and responsibilities, history, and cultural heritage): I am familiar with my community’s history and the local political processes.*

Not effective		Somewhat effective		Very effective		
1	2	3	4	5		No known experience

4. *I have experience in the 4-H citizenship project.*

Not effective		Somewhat effective		Very effective		
1	2	3	4	5		No known experience

5. *Leadership (leadership, respect, understanding, character development) I have 4-H leadership experience.*

Not effective		Somewhat effective		Very effective		
1	2	3	4	5		No known experience

Healthy Living

6. *Nutrition: I understand how food plays a role in health and wellness through experience in the 4-H food & nutrition project*

Not effective		Somewhat effective		Very effective		
1	2	3	4	5		No known experience

7. Fitness: I understand the importance of physical activity through participation in the 4-H health project.

Not effective	Somewhat effective		Very effective		
1	2	3	4	5	No known experience

8. Social-Emotional Health: I am aware of how social and emotional well-being affect overall health.

Not effective	Somewhat effective		Very effective		
1	2	3	4	5	No known experience

9a. Prevention of Injuries: I understand how to promote a safe lifestyle and safe choices.

Not effective	Somewhat effective		Very effective		
1	2	3	4	5	No known experience

9b. I can identify safety risk factors when I see them.

Not effective	Somewhat effective		Very effective		
1	2	3	4	5	No known experience

10. Prevention of Tobacco, Alcohol, and other Drug Use: I know about the risks associated with these behaviors.

Not effective	Somewhat effective		Very effective		
1	2	3	4	5	No known experience

SCIENCE

11. *Animal Science & Agriculture: I have experience with one or more of the following 4-H project areas:*

animal science, crop science, small grains, corn, legumes, horticulture, etc.

Not effective	Somewhat effective	Very effective	
1	2	3	4
			5
			No known experience

12. *Applied Mathematics: I have a practical understanding of mathematics in real-world situations.*

Not effective	Somewhat effective	Very effective	
1	2	3	4
			5
			No known experience

13. *Consumer Science: I understand principles of the consumer decision-making process, as outlined in 4-H projects including: home environment and/or consumer education.*

Not effective	Somewhat effective	Very effective	
1	2	3	4
			5
			No known experience

14. *Engineering: I have experience with engineering projects and principles, including robotics, geospatial, and/or related topics.*

Not effective	Somewhat effective	Very effective	
1	2	3	4
			5
			No known experience

15. Environmental Science & Natural Resources: I have experience with one or more of the following project areas: water & wetlands; wildlife biology; plant & soil science; forest resources; exploring the environment; geology; or related topics.

Not effective		Somewhat effective		Very effective		
1	2	3	4	5		No known experience

16. Life Science: I have experience with one or more of the following project areas: wildlife biology; entomology; animal science; or related topics.

Not effective		Somewhat effective		Very effective		
1	2	3	4	5		No known experience

17. Technology: I have experience with using technology to enhance my 4-H learning experiences.

Not effective		Somewhat effective		Very effective		
1	2	3	4	5		No known experience

Part II - Open-ended questions:

1. What additional areas would you like to see 4-H focus on in the future?

2. How can 4-H distinguish itself from other out-of-school-time (OST) activities?

3. Why do you participate in 4-H?

4. What benefits do you gain from 4-H participation?

Appendix B

IRB Letter

irb@umn.edu

11/18/13

to me, dobrovca

TO : kzak@umn.edu, neat0007@umn.edu,

PI: Nicholas Neaton

IRB HSC: 1310P45190

Title:

4-H Mission Mandates Survey

From: Institutional Review Board (IRB) The IRB determined your planned activities described in this application do not meet the regulatory definition of research with human subjects and do not fall under the IRB's purview for one or both of the following reasons:

1) The proposed activities are a) not a systematic investigation and/or b) not designed to develop or contribute to generalizable knowledge [45CFR46.102(d)].

Quality assurance activities and evaluation projects designed for self-improvement or program evaluation, not meant to contribute to "generalizable" knowledge, do not meet the threshold of research with human subjects.

Although IRB review may not be required for case studies, you still may have HIPAA obligations. Please contact the Privacy Office at [612-624-7447](tel:612-624-7447) for their requirements.

and/or

2) You will not obtain private identifiable information from living individuals [45 CFR 46.102(f)].

Interviews of individuals where questions focus on things not people (eg. questions about policies) do not require IRB review.

You will be analyzing aggregate data that cannot be linked to a living individual.

The above referenced IRB Human Subjects Code (HSC) will be inactivated in the database and you will have no further obligations for this project. Please do not hesitate to contact the IRB office at [612-626-5654](tel:612-626-5654) if you have any questions. Thank you for allowing the IRB to make the determination about whether or not review is required.

HRPP Staff