THE RELATIONSHIP BETWEEN TEMPERAMENT TYPE AND MOTIVATIONS OF GALLATIN COUNTY 4-H VOLUNTEERS FOR RECRUITMENT AND RETENTION EFFORTS

by

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A professional paper submitted in partial fulfillment of the requirements for the degree of

Master of Science

in

Agriculture Education

MONTANA STATE UNIVERSITY
Bozeman, Montana

April 2015
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The researcher examined 4-H adult volunteers using both the Real Colors™ temperament instrument and an instrument based on McClelland’s trichotomy of needs. Volunteer personality temperaments and motivations had been observed in previous studies as defining factors for both recruitment and retention. However, no studies pertaining to 4-H volunteers had been conducted to determine if temperament type was a predictor for motivations. The researcher collected data from 16 current Gallatin County 4-H volunteers with at least one year of volunteer experience. Results revealed that the blue (idealist) temperament type was the dominant temperament type among the participants and orange (artisan) as the least dominant. Volunteers with blue (idealist) temperament types identified affiliation as their preferred motivation type, and orange (artisan) temperament identified achievement. Motivational statements identified as most and least important were included. No statistically significant correlation existed between temperament types and motivation subgroups (affiliation, achievement, and power). The study outlined motivation statements of importance for the different color temperament types and made recommendations for broader recruitment and retention strategies for a more adaptive volunteer program.
CHAPTER ONE: INTRODUCTION

The success of 4-H programs had been attributed to the high quality of volunteers facilitating youth development programs (Singletary, Smith, & Evans, 2005). The caring adults component of 4-H enabled the learn-by-doing approach to help youth develop the knowledge, attitudes, and skills they needed to become caring and contributing citizens of society. The 4-H volunteers were guided by county Extension agents as outreach of land-grant universities in their states. Volunteers were important to the Cooperative Extension Service due to the work they contributed and their problem-solving initiatives (Culp, McKee, & Nestor, 2005). Montana Cooperative Extension, which was a part of 4-H Extension received funding from the partnership of federal (the Department of Agriculture’s National Institute of Food and Agriculture), state (Montana State University land grant university) and county (County Commissioners) (Lewis, Murphy, and Baker, 2009). Horn, Flanagan, and Thomson indicated funding of 4-H was comprised of private sources and raised funds on local levels, while many clubs, councils, and foundations were non-profit entities (1998). Because 4-H was a nonprofit organization, volunteers were vital to the program, which could not deliver the quality or quantity of programs that served the 4-H mission without them (Skolglund, 2006).

Additionally, 4-H volunteers had an economic impact on communities in which they serve. Montana had 3,185 adult 4-H volunteers (A. Kosto, personal communication, 2014) who contributed 3.75 hours a week (Arnold, Dolenc, & Rennekamp, 2009), or approximately $12 million yearly, based on an hourly wage of $19.64 (Volunteering and Civic Engagement in Montana, 2013). Traditional 4-H programs were challenged to
maintain youth-membership numbers as the program evolved, while engaging volunteers across the diverse programming model (Borden, Perkins, & Hawkey, 2014).

Skoglund (2006) suggested nonprofit organizations that improved volunteer performance and work for volunteer retention had an advantage. Montana 4-H volunteers performed duties ranging from clerical and administrative work, community relations, fund-raising, and writing, to providing assistance or leadership with youth development programs, to serving as committee members and leaders (Example Volunteer Roles and Requirements, 2014).

The management and value of volunteers was pertinent to the 4-H nonprofit organization. Not-for-profit organizations, such as 4-H, needed to capitalize on abilities and individual temperaments to meet volunteers' expectations arising from different personal motivations (Score Foundation, 2010). The activities volunteers chose to engage in differed because of their traits, behaviors, and beliefs, each potentially affected by motivation. Over time, an individual selected situations that permitted expression of character, temperament type, and values to create a volunteer experience expressing their individual disposition choices (Haski-Leventhal, 2009). Widjaja (2010) reported the significance of benefiting from volunteer skills and abilities while meeting volunteer motivations.

According to Carlo, Okun, Knight, and Guzman (2005), a joint relationship existed between traits and the volunteer’s actions and were led by one’s motives to work with an organization. Connecting volunteers to organizations through temperament types and motives reflecting perceived usefulness allowed organizations to evolve, become more active, and offer diverse programming. As organization's leaders developed
understanding of volunteer’s motivation and were able to fulfill that motivation, that organization became more appealing to the volunteer (Trogdon, 2005). Beyond economic value to the volunteer, motives were important to understanding how to recruit volunteers and encourage them to continue with the organization. Volunteer satisfaction was multidimensional that included the tasks, motivation, and management of the individual and his or her fulfillment (Bachman, 2014). When volunteers were motivated by something that enthused them, volunteer coordinators needed to support the motivation in order to preserve the incentive and foster volunteer satisfaction. Volunteers should not be separated from things that motivated them or from the values or beliefs they held (Culp, Tichenor, Doyle, Steward, & Hunter, 2010).

Researchers have reported a direct relationship between a volunteer’s temperament type and what led to volunteering (Atkins, Hart, & Donnelly, 2005). The volunteer’s willingness to partner with an organization’s work included the personal characteristics and factors relating to his or her experience (Gazley, 2012). The Real Colors™ temperament type helped participants identify characteristics, tendencies, and personal preferences to better understand themselves and others (NCTI, 2013). The Real Colors™ tool identified four temperament characteristics (NCTI, 2005a).

Henderson (1981) determined most volunteers were motivated by doing a job well and were driven by the affiliation and achievement needs from McClelland’s trichotomy of needs. Fritz, Karmazin, Barbuto, & Burrow (2003) examined 4-H organizational club leaders and project leaders need for achievement, affiliation and power based on McClelland's trichotomy of needs. The researcher-developed instrument was designed to capture participation motives reinforcing the volunteer’s personal
activities and allowing higher task competence. A study using the Fritz, et al instrument assessed college students volunteering as club organizational leaders; they were motivated by the need to feel a part of 4-H youth development, based on determination of inclusion and affiliation (Schrock & Kelsey, 2013). The volunteer experience was improved when primary motives were examined by assessing self-perceived feelings of power, achievement, and affiliation tied to the volunteer experience. Placing volunteers in roles they found personally satisfying and that yielded a meaningful source of recognition translated into volunteer retention and permanency, according to Culp & Schwartz (1999).

To better understand the human behavior of volunteering for recruitment and retention purposes, organized volunteer programs needed to be evaluated for the motives producing positive volunteer performances. Combining the motivation assessment with the identification of temperaments offered greater insight for guiding human behavior. With such insight, Extension professionals may engage volunteers more successfully thereby providing a better experience for the volunteer and ultimately a better experience to those being served by the volunteer. Investigating relationships between temperament and motivation of Gallatin County 4-H volunteers may provide Extension professionals better insight for managing and developing volunteers; such understanding may positively impact both recruitment and retention of volunteers.

Identifying motivation and temperament types may encourage people to volunteer in the organization and connect the volunteer roles with the needs of volunteers. Thus, the research question for this study was to determine the extent to which an explanatory
relationship existed between temperament and motivation of Extension 4-H volunteers in Gallatin County.

**Purpose and Objectives**

The purpose of this study was to identify the Real Colors™ temperament types and relationships to the motivation of 4-H volunteers. To accomplish that purpose, the following objectives were formulated:

1. Determine the temperament types of Gallatin County 4-H volunteers.
2. Determine individuals motivations to volunteer with Gallatin County 4-H.
3. Determine potential explanatory relationships and magnitude of those relationships between volunteers’ temperament types and motivational factors.

**Limitations**

The researcher investigated whether an explanatory relationship existed between temperament and motivational factors of Gallatin County 4-H volunteers. The motivational factors assessed by McClelland’s trichotomy of needs were based on the time and experience a volunteer had with the 4-H program. However, some volunteers had limited time to extensively cover their 4-H volunteer role. This research was limited to the volunteers engaged with the Gallatin County 4-H organization at a specific period in time. Since participation in the research was voluntary, no generalizations beyond the study can be drawn.
Another limitation was the time frame for the research. The ideal research scenario would allow time for volunteers to become better acquainted with different 4-H program activities within specific volunteer opportunities. Some might be more comfortable completing one topic over the other, which could lead to some variability between motivational results.

**Definition of Terms**

1. **Temperament:** A pattern of personality traits made up of a combination of dispositions from daily life occurrences and personal experiences. It is an inherited physiology that links emotions and behaviors. The adult profile is influenced by temperament but not defined by it (Kagan & Snidman, 2004).

2. **Motivation:** “The need or reason to do something, relating to volunteer is to work, help or assist for little or no financial compensation, motivation is understood as the reason for doing the volunteer act” (Unstead-Joss, 2008).

3. **Volunteer work:** "formal volunteering," volunteer work in or for the community, where time and effort are given for the betterment of the community in general (Thoits and Hewitt, 2001). In the case of 4-H, the volunteer will be an adult volunteering with youth or the youth organization as a leader.

4. **4-H volunteers:** Adults at least 19 years of age who serve in a volunteer capacity as mentors, teachers, and coaches and who nurture the facilitation of clubs, special interest groups, project curricula areas, camps, and afterschool or school enrichment programming for youth 6-19 years of age.
5. Certified 4-H Volunteer: MSU Extension, Gallatin County volunteer that has completed the Montana 4-H certification process and was accepted into the program.

Assumptions

The researcher assumed the Real Colors™ responses were given honestly and accurately and thus reflected respondents' temperament types. Additionally, McClelland's trichotomy of needs developed for 4-H volunteers by Susan Fritz and the added questions identified by NCTI and a trained facilitator correctly identified motivational factors with which volunteers identified. The third assumption was that the volunteers had an accurate understanding of their volunteer role and position in the Gallatin County 4-H program.
CHAPTER TWO: REVIEW OF THE LITERATURE

Introduction

The first portion of this review focused on the elements of temperament and motivation as they related to theories about volunteer recruitment and retention. Retention and recruitment focused on volunteers in nonprofits, specifically the 4-H organization. In this chapter, the researcher explored theories relevant to the study. Topics included volunteers in the nonprofit sector, the 4-H volunteer, temperament theory, Real Colors™, motivational factors of 4-H volunteers, McClelland’s theory, and volunteer’s recruitment and retention within 4-H. The second portion of the review concentrated on the instruments used to assess volunteer motivation and temperament types.

Volunteerism

Volunteering required skills, commitment, time, and a willingness to serve. Monthly data collection by the Current Population Survey (CPS) indicated 62.8 million people volunteered with an organization at least one time from September 2013 through September 2014 (Volunteering in the United States—2014, 2014). The CPS authors noted a .01% decline from previous years explained by increased competition for volunteers and their time among organizations (Volunteering in the United States—2014, 2014). While declines were observed in both male and female volunteers, The Bureau of Labor Statistics (BLS) reported women continued to volunteer at higher numbers; aged 35-44 year females volunteer the most frequently at 30.6%, while aged 20-24 year.
females were the least likely to volunteer (Volunteering in the United States—2014, 2014). As the group of 45 and older individuals declines, there was a decrease in volunteer numbers and the lowest rates for volunteers were among 20- to 24-year-olds at 18.7% (Volunteering in the United States—2014, 2014). Volunteers served an array of nonprofits from small to large foundations and institutions. Nonprofit sectors included human services, natural resources, community development, disaster relief, education, and religious teachings (Stukas, Worth, Clary, & Snyder, 2009).

Age and gender alone cannot fully explain who volunteers and why. A hybrid theory proposed by Chambre and Einolf (2011) assessed the sociological theories of social context, social integration, and social networks and emphasized volunteers’ beliefs, behavioral attitudes, and the attraction a volunteer had to an organization. When the three theories were combined with demographic controls, a 40.7% variation in the likelihood one volunteers was revealed. Demographic variables alone accounted for little explanation of the desire to volunteer, however education was a strong indicator of volunteerism within all three social theories. One demographic group not contributing more was retirees, even though the assumption existed that having more free time would allow for increased volunteerism. Chambre and Einolf noted however, retiring had little effect on the volunteer rate because of social roles (2011) and integration from the place of work or school involvement (Erentaitė, Žukauskienė, Beyers, & Pilkauskaitė-Valickienė, 2012). By determining prosocial values (behavior) and links to volunteer altruism (motivation), one can determine a potential volunteer or potential role.
Evolution of the 4-H Volunteer

The 4-H organization was the youth education program of the Cooperative Extension Service that combined the work of the United States Department of Agriculture, land grant universities, county and local Extension staff, and, importantly, volunteer leaders. The 1914 Smith-Lever Act provided financial support for the 4-H program and a foundation that Liberty Bailey had begun to develop contributed to the “learning by doing” club work in 1896 (Gordon, 2014).

In 1954, a leader’s manual was developed with lessons and demonstrations covering the maintenance and operation of farm equipment. Later, manuals were expanded to include multiple projects and areas for 4-H leaders (Wessel & Wessel, 1982). During this time, committees within 4-H were formed to cover the array of project areas (Green County 4-H Ambassadors, 2009). Committees were another form of volunteering.

Many volunteer roles have persisted, while some have evolved: leaders for school club or afterschool programs, community club organizational leaders, camp volunteers, 4-H council members, 4-H project leaders, adult chaperones, sporadic volunteers, activity and event volunteers, and state/national volunteers (Culp, Aldenderfer, Allen, Fannin-Holliday, Ford, & Goodwin, 2006). Gallatin County 4-H had 130 volunteers serving in various capacities: leading traditional 4-H clubs, leading specialized project groups, one-time volunteers and leaders serving on committees (Annual Report, 2013). The MSU Gallatin County Extension Annual Report stated Extension services provided leadership for 537 enrolled 4-H members and 25 active clubs (Annual Report, 2013).
There was a greater degree of educational diversity among volunteers, and 4-H volunteers were more highly educated than those who came earlier, (Culp, McKee, & Nester, 2005). While the names of volunteer roles have stayed similar, the role distinctions have changed and can even change from one 4-H program to another. Riley and Butler (2012) identified role clarification for volunteers as an important aspect volunteer organizations often assumed or overlooked.

4-H Volunteer Management

Hager and Brudney (2004) reported time spent on volunteer management had a positive impact on the capacity of volunteers; as a result, volunteers’ knowledge and success increased. Adults played a pertinent role in 4-H, so their preparation and continued education should be a priority. Researchers identified satisfaction with the 4-H environment and the benefits received as the driving factor in determining whether that volunteer will stay (Terry, Pracht, & Wiggins, 2013).

The reasons given by those 4-H volunteers who quit volunteering were worth reviewing. Boone, Payne, Boone and Woloshuk (2013) reported six factors that led to volunteer attrition: a) relationship with the Extension agent and other 4-H leaders, b) being left alone in their work, c) a lack of training, d) generational differences in motives, e) own children no longer involved, and f) burn out. Lobley (2008) reported the difference in 4-H volunteer numbers over time was caused by the decline in women working as homemakers and in family structure (dual-parent vs. single-parent homes). Within the Extension professional’s role of recruiting and retaining volunteers, Terry,
Pracht, and Wiggins (2014) concluded recruiting new volunteers took more time than maintaining an existing volunteer.

Beyond demographics, four reasons were identified that explained why adults volunteer for youth-centered programs: a) wanted to contribute to their community, b) wanted to help youth, c) had children in the program, and d) enjoyed the social aspects of group volunteering (Reimer, Dorsch, & Hoeber 2004). White and Arnold (2003) assessed the reasons 4-H volunteers started volunteering with the organization. Initially, having a child in the program was a primary reason, but two other important reasons surfaced: making a difference in the lives of youth, and satisfaction after the volunteer activity was completed. Cleveland & Thompson (2007) identified additional relevant motives: individual values, a desire to learn, personal development, community involvement, and an increase in one's self-esteem. These factors related to the amount of time a volunteer was retained and were validated by studies that encouraged interaction with others through training, personal development, and recognition (Hager & Brudney, 2004).

Temperament of Volunteers

Temperament traits were long used to classify people and to predict work abilities (Omoto, Snyder, & Hackett, 2010). Relevant to the role of volunteers, the trait of generosity proved to be a strong predictor for taking care of family members, donating money, contributing time to volunteer, and contributing to charitable causes (Rossi, 2004). Bekkers (2004) linked the traits of extraversion and agreeableness to people who volunteer. One may feel distressed or empathetic enough to help to decrease one’s stress, or empathy may create a sincere desire to help (Haski-Leventhal, 2009). Penner (2002)
identified empathy and helpfulness as distinct characteristics of volunteers, and empathy also had a strong correlation to nurturing and thoughtfulness. Role identity that used temperament traits helped explain the intention to volunteer and served as a predictor of future behavior (Marta, Manzi, Pozzi, & Vignoles, 2014). Differences of temperament likely explained the social demands a volunteer was willing to undertake. These traits were predictors of how one will act in a given situation (Musick & Wilson, 2008).

Different 4-H leadership groups were surveyed to determine temperament types. The information was used to develop a profile to better understand leaders, plan future leadership opportunities, and create effective educational strategies (Barrett & Horner, 1989). The volunteer experience also allowed for confidence building, leadership opportunities, a sense of well-being, and satisfaction (Choi, Burr, Muchtler, & Caro, 2007). Such motivations can affect the level and intensity one puts forth as a volunteer. Those also influence the volunteer's sustainability within the organization. Penner (2002) noted temperament influenced volunteers’ willingness to continue because of the role identity developed through the organization and the perceived value of work being completed.

**Keirsey Temperament Theory**

Based on the Myers-Briggs Type Indicator, Keisery and Bates sorted different temperaments into four categories: the artisan, the rational, the idealist, and the guardian based on four kinds of intelligence: tactical, logistical, diplomatic, and strategic, respectively (Contino, 2004). Each defined one’s abilities and needs. Individuals looked for connections that suited his or her intelligence and temperament (Keirsey & Bates,
1998). The Keirsey assessment provided insight into temperament types that determine the motivations compelling that individual. One is more likely to volunteer if one anticipates a benefit to one’s own life and identity. This translated into the relationship a person had with the cause or issue that reflected the person as a volunteer. This was also true of work completed for fame, achievement, intellectual growth, self-fulfillment, social interaction, or to solve problems. (Bennett, 2003)

Based on these four temperaments, some tend to be altruistic and can promote implementation within a group, some with protective tendencies worked to preserve the group, the innovative individuals excel at strategy and analysis, and the spontaneous add self-sufficiency to work on projects that were autonomous (Rodríguez, García Nieto, Alvarez, & Fernández, 2005). Self-discovery can help one determine one’s best role within an organization (Wet Feet, 2008).

**Real Colors™**

The Real Colors™ temperament assessment was used to determine temperament types. It was useful when communicating, working, and aligning volunteers with roles. Real Colors™ was a temperament assessment based on the personality theory of Carl Jung and confirmed through the research of Keirsey-Bates and Myers-Briggs (NCTI, 2005b). It paired temperament theory with a person’s self-perceptions to facilitate understanding of self and others. The National Curriculum Center and Training Institute created the Real Colors™ instruments as tools to assess temperament (NCTI, 2005a). According to Walford (2005), some temperaments were more dominant in the general
United States population. The four categories used to identify temperament types were created based on colors (NCTI, 2005a).

- **Blues**: sympathetic, communicative, compassionate, idealistic, sincere, and imaginative.
- **Golds**: loyal, dependable, organized, thorough, sensible, punctual, and caring.
- **Oranges**: witty, spontaneous, generous, optimistic, eager, and bold.
- **Greens**: perfectionistic, analytical, conceptual, cool, calm, inventive, and logical. (NCTI, 2013)

The Cooperative Extension Services of Washington, Iowa State, and Montana State University provided its various stakeholders with Real Colors training. Through the training, community members were able to recognize and value strengths (NCTI, 2005c) that may be beneficial when completing volunteer projects. According to NCTI, University of Washington Extension identified the tool as a means allowing people to associate temperament theory with their real life happenings in a way that was understandable and usable. Iowa State University Extension stated that “it provides users with an effective tool for understanding human behavior, for uncovering motivators specific to each temperament and for improving communication skills” (2014, p 1). Real Colors was used to enhance personal and professional relationships. MSU Extension Services worked with community leaders during the Horizon’s project, the techniques learned brought about lasting, positive, and high levels of success (D. Clark, personal communication, April 17, 2015). The knowledge gained allowed individuals to
understand what is personally important, how those central values affect behavior, and how to relate to others (Walford, 2005).

**Volunteer Motivations**

Motivations include but were not limited to learning, self-actualization, and increased social status (Hastings, 2006). Scholars have debated both the altruistic and non-altruistic reasons for volunteering; neither was universally accepted as the principle motive. The two egoistic-altruistic ideas complement each other when defining a volunteer's motivations for proceeding with the activity.

A study of adults identified important factors for volunteering. Developing friendships and a sense of belonging were the top motivations, and expressing one’s personality and beliefs were also important. The least motivating factors were to gain relief of personal worries through the work and to improve the volunteer's economic state. The same study examined non-volunteers, finding they do not respond with the same enthusiasm to the opportunity to express beliefs or personality through the volunteer role (Schye, 2010). A study examining the motivations of natural resource-related programs determined respondents wanted to learn new skills and help the environment while promoting community improvement (Cleveland & Thompson, 2007). The approach of matching motivation to the benefit gained from the experience gave the volunteer more satisfaction (Houle, Sagarin, & Kaplan, 2005).

**McClelland's Trichotomy of Needs Theory**

McClelland's trichotomy of needs was a motivational model based on affiliation, achievement, and power developed from Henry Murray’s work of motives and needs of
personalities (Nelson & Quick, 2013, McClelland, 1978). The person who identified with an affiliation needed love, belonging, and relatedness. These factors were associated with high social interaction. Achievement was demonstrated through competence, mastery of a subject, and a high need to excel. Power was related to having oversight of one’s own work and in some cases the work of others (Moore, Grabsch, & Rotter, 2010).

McClelland's Needs of 4-H Volunteers

In Henderson’s 1981 study based on McClelland’s model and using a population of 4-H volunteers, she reported 84% answered questions associated with affiliation, mostly because they had children in the 4-H program. Rouse & Clausen (1992) found a strong desire among adult 4-H volunteers to spend time with youth and to help people, again affiliation motives. Culp (1997) established affiliation as a strong indicator of involvement with children in 4-H, a connection with 4-H (a member of the organization), and the desire of the organization to include volunteers. In examining motives for service, White and Arnold (2003) found affiliation was the highest, spurred by a desire to make a difference in youth’s lives and to achieve satisfaction from helping others.

In a 2003 research project, Fritz, Karmazin, Barbuto, and Burrow reported the motivation of urban and rural volunteers to be comparable based on recognition preferred, which aligned with affiliation motives of letters and phone calls. Ten years later Schrock and Kelsey (2013) sampled college student 4-H club leaders to identify motives; achievement affiliation were mostly commonly identified. While affiliation was determined to be a motivator first, single and childless were also factors (Schrock & Kelsey, 2013).
Research has shown that volunteers were motivated in certain ways to participate in an organization or program. A study based on motives by Fritz, Barbuto, Marx, Etling, & Burrow (2000) provided insight into recruitment efforts, advising to focus on the parents of 4-H members and 4-H alumni because they have children in the program and a vested interest in the success of their volunteer roles. While affiliation was predominantly used as a form of recognition, some might not feel adequately recognized and thus might curtail their involvement.

**Volunteer Recruitment and Retention**

Targeted volunteer recruitment involved the need to reach out to those with desired skills, commitment, and the desire to help (Smith & Finley, 2004). Understanding motives was helpful with identifying volunteers. Culp (2012) identified the needs, interests, and attitudes as part of the screening process to select volunteers to perform appropriate tasks or activities during the recruiting process. When managers were completing volunteer training, they must understand the volunteers as well as the importance of this element to improve retention (Arnold, Dolenc, & Rennekamp, 2009).

To sustain new volunteers' interest, rewards were essential motivators. In a community project, volunteers earned academic credit and community service credit for their efforts (Smith, Dasher, & Klingborg, 2005). A study of 4-H volunteers revealed increased volunteer retention was accomplished by focusing on a screening process, recognition strategies, and benefits to better understand the volunteer (Terry, Pracht, Fogarty, Pehlke, & Barnett, 2013). Maxa (2004) reported that understanding human personality was part of determining whether a volunteer was right for a particular
program. When the volunteer’s commitment, temperament, and personal goals aligned with the philosophy of an organization, the result was motivation, confidence, and achievement that helped sustain commitment (McCuddon, 2000).

Houle, Sagarin, and Kaplan (2005) determined that matching volunteer tasks with the volunteer’s motivations before the volunteer role was filled was a significant predictor of satisfaction. Volunteers’ different roles satisfied different motivations. There was a correlation in task appeal with fondness for the work being completed, which suggested individuals do choose tasks that aligned with personal motives. Thus, an organization may have better success in describing volunteer roles and matching these motives instead of randomly selecting or describing the volunteer role in inadequate detail.

After the initial job or role was found for the volunteer, it was important to continue to work to identify the volunteer's motivations and to maintain the volunteer's interest (Vettern, Hall, & Scmidt, 2009). Vettern and fellow researchers identified important motivational factors when working with volunteers in Extension roles: volunteers understanding the importance of their work, recognition of volunteers, providing skill building that can enhance or advance them professionally or personally, offering social activities, providing a welcoming atmosphere, providing flexible roles for those who desire them, and evaluating the role to describe what can be attained by the volunteer's commitment. By targeting the volunteer, a manager may be able to increase both the range of the program and outreach in a community. Bang and Ross (2009) determined the strategies for implementing the motivations of a volunteer were sharing
and producing outcomes, providing feedback, and encouraging the volunteer throughout the process.

Targeted volunteer recruitment involved the need to identify the volunteer and to reach out to those with desired skills, a commitment, and a yearning to help (Smith & Finley, 2004). Understanding motives may help managers identify volunteers. Culp (2012) identified needs, interests, and attitudes as part of the screening process to select volunteers for appropriate tasks or activities. Training has been an important part of the 4-H volunteer program. When completing the training, volunteer managers must understand the volunteer as well as the importance of this element for retention (Arnold et al., 2009).

**Summary**

The review of research has identified the importance of temperament and motivations of the 4-H volunteer for recruitment and retention. Understanding a volunteer’s temperament can help Extension personnel understand their volunteers better and plan management strategies that were effective for all types of people (Barrett & Horner, 1989). The use of motivation and temperament to show volunteers' characters reveal the reasons people have for volunteering. These reasons can have implications for continuing or stopping volunteer service with an organization as well as on the support and management of volunteers (Wardell, Lishman, & Whalley, 2000). The research shows that volunteering was based on an individual's personality (temperament), which should be something that is considered in volunteer recruitment and retention efforts.
CHAPTER THREE: METHODOLOGY

Introduction

The purpose of this study was to identify the Real Colors™ temperament types and relationships to the motivation of 4-H volunteers. To accomplish that purpose, the following objectives were formulated.

1. Determine the temperament types of Gallatin County 4-H volunteers.
2. Determine individuals motivations to volunteer with Gallatin County 4-H.
3. Determine potential explanatory relationships and magnitude of those relationships between volunteers’ temperament types and motivational factors.

The researcher reviewed the specific statements about each temperament type to create a better understanding of motivations. In addition to the instrumentation, site setting, and selected population, this chapter included the design, the data-collection procedure, and the data analysis for each objective.

Instrumentation

Real Colors™

The researcher utilized the Real Colors™ temperament type assessment, which offered people a way to understand themselves and helped them capitalize on their strengths (Johnson, 2005). The four different colors identified temperament types, thus creating understanding of human behavior, motivators specific to the color temperament, and behavioral styles based on characteristics of the individual. The participants created a
combination or a score to determine the level of characteristics he or she related to in each color temperament, resulting in behavioral preferences. The participants learned the characteristics of each of the four color temperaments (blue, gold, green, and orange), discovered what color they relate to from most to least as individuals, and followed up in discussions with fellow workshop participants (NCTI, 2013).

**Motivation Assessment**

The second instrument used was based on McClelland’s trichotomy of needs and developed by Susan Fritz (2000) for 4-H volunteers. Fritz’s instrument consisted of 27 Likert items and, according to Fritz, measured volunteers' motivational factors, specifically respondents' self-perceived importance of certain attitudes, beliefs, and behaviors. University of Nebraska Extension faculty and graduate students were involved in establishing the validity and reliability of the instrument (Fritz et al, 2000). Likert-type instruments were frequently used to help respondents choose the option that best aligned with their views (Ajzen, 2005). With the apriori approval of Dr. Fritz, the instrument was adjusted to include six additional statements to fully represent all four temperaments. This was to ensure that the selected items within a pool allowed for representation of each temperament so participants could use the scale to determine the degree to which they were represented in each category (Ajzen, 2005). The adjusted statements were written, reviewed, and approved by a Real Colors™ facilitator and an NCTI specialist. The responses to each item were measured using a 4-point Likert-type scale, with a 1 = Somewhat Important, 2 = Important, 3 = Very Important, and 4 = Not Important at All.
According to Boone, Jr., and Boone (2012), a Likert-type scale without a neutral response can be used to produce a quantitative measure of motivations.

The approval from the Institutional Review Board (IRB) was received by the researcher to follow through with the study on November 14, 2014. The participants signed consent forms that provided access to temperament scores and the participation for information from the motivational survey (Appendix A).

**Population**

The population was defined as current Gallatin County 4-H volunteers who had been certified, provided service for at least one year, and would be volunteering for a second or additional year. Further, these volunteers had completed service in the various 4-H program volunteer areas. The participants were targeted by email obtained through 4-H volunteer registration packets and asked to participate in the study.

There were 141 enrolled certified volunteers in Gallatin County 4-H as of 2014; 24 were new volunteers with less than one year of experience. Since the research focused on volunteers with at least one year of experience, 117 volunteers met the parameter and 16 participated in the study. There were 85 female volunteers and 32 male volunteers who had contributed one-plus years to Gallatin County 4-H; 58 were project leaders, 27 are organizational/club leaders, and the remaining volunteers fulfilled other roles, including one-time volunteers, overnight chaperones, committee leaders, and board members.
Data Collection

Each potential respondent identified within the population was asked to complete the required informed consent, which included introductory information describing the study, the researcher, and why the recipients were chosen to participate in the study. Monetary incentives were used to motivate the survey participant (Singer, 2002). Another incentive to increase participation was offering participants a free dinner for undertaking the Real Colors™ training. The motivation instrument was emailed in December 2014 and followed up with a second email in January 2015 and a final email in February 2015. Manzo and Burke (2012) encouraged the use of two follow-up email notifications, based on the sensitivity of people who receive a large amount of emails.

The survey consisted of 33 questions about motivation relating to achievement, power, and affiliation. The statements were presented in a Likert-type scale, and each area was formulated to what 4-H volunteers would understand about their volunteer role. Real Colors™ was administered to adult 4-H volunteer leaders in Gallatin County, Montana in 2013 and again in 2015. Some of the volunteers completed the training during other professional development seminars due to the popularity of Real Colors™ within MSU Extension. These volunteers self-reported their scores to the researcher. A mixed approach was used for data collection as outlined by Fowler (2008). The motivation questionnaire was distributed by email and the other in person after Real Colors™ training.

The researcher maintained confidentiality for both the temperament and motivation data. The scores from the temperament assessment were owned by the
participants and released on the consent form as the individual completed the motivation surveys. The Real Colors™ training books were provided to participants by the researcher unless the assessment was taken prior to the January training, in which case, Gallatin County 4-H Extension provided funding. The researcher obtained the color scores with the motivation survey. The information was stored upon receipt in a secured and confidential space.

Upon collection of survey data, the researcher used county-maintained 4-H records to ensure the volunteer had been in the program for at least one year. This validation check revealed one participant was not a certified volunteer; that data was excluded from analysis. Another participant was unable to recall the number scores from the Real Colors™ instrument and was also excluded. The motivation survey had missing values that existed in the question set, and a response of NA was used. These individual NA responses were excluded from analysis.

Data Analysis

Data was collected in an insubstantial data format allowed for observation of temperament type and motivation of a specific group. The researcher compiled data from both instruments using Microsoft Excel™. Volunteers’ temperaments were charted to produce a visual data depiction that was compared with Keirsey and Bate’s (1998) research. Higher temperament scores within each of the four categories or colors indicated greater dominance to that temperament type (NCTI, 2013). The researcher included the secondary temperament because, according to Johnson (2005), work, family, friends, responsibilities, and volunteering may push a person to move from his or her
preferred type. The secondary temperament was important; stress factors increased the chance of one moving back and forth between temperament traits if the scores are within four points (NCTI, 2013). An average type determined for the group and percentages were used to create the chart.

The motivational survey data were also analyzed using Microsoft Excel™, with the ranking 0-3 used to determine the mean and the perceived motivation for the calculation of a standard deviation. The collected data provided an average score for each statement because the score calculated one theory: perceived motivation for completing 4-H volunteer roles in Gallatin County. The mean provided a central tendency and the standard deviation variability for each statement. A score between two and three indicated the motivation statements were important to very important, while scores one or below indicated little or no importance. Motivation statements that demonstrated a high tendency and low variability from all 16 participants, indicating high importance by all, were listed.

The temperament type predictor variable determined if a relationship existed with the response motivation variable of power, achievement, and affiliation. A scatter plot was used to provide a visual depiction for each participant based on each temperament score and the corresponding motivations. The profile for each individual was shown as lines connecting all four individual scores in each of the four temperaments. This statistical analysis was completed in the statistical computing program R, provided statistical figuring and graphics. The following codes were used from Excel™ to complete R analyses.
Table 1. Codes used in both Excel™ and R for statistical results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likert Scale—1, 2, 3, 4</td>
<td>1-1, 2-2, 3-3, 4-0</td>
</tr>
<tr>
<td>Question—1, 2, 3, 4…..</td>
<td>M1, M2, M3, M4…..</td>
</tr>
<tr>
<td>Participant—1, 2, 3…..</td>
<td>S1, S2, S3…..</td>
</tr>
</tbody>
</table>

Raw scores were used to achieve a more accurate picture of the first, second, third, and fourth color temperament scores in each motivation subgroup. Graphing revealed the individual’s primary motivation based on the highest mean exhibited for each individual, the number of volunteers in that group, and the number associated with the individual’s four color temperaments. This visual showed a comparison of all four temperaments among the participants, thereby assisting correlational analysis between temperament type and motivation. A bar plot was used to graphically illustrate an individual’s primary color temperament type based on the actual score and the primary motivator based on the mean for each individual. This allowed the researcher to determine how many participants were in each motivation category based on only the preferred temperament type. Motivation subgroups were broken down by temperament preference. A scatter plot using the individuals color temperament scores and the motivation subgroup mean scores were used to determine correlation. Individual statements based on the degree of importance and temperament type color were listed to create some explanation within the conclusion.
CHAPTER FOUR: RESULTS

Introduction

Chapter four described the results of the research study. The purpose of the study was to identify the Real Colors™ temperament types and relationships to the motivation of 4-H volunteers in Gallatin County, Montana. The data were compiled and analyzed in Microsoft Excel™ to reveal relationships between temperament and motivational factors of the volunteers who participated in the research. The results in this chapter were organized on the specific objectives for the study:

1. Determine the temperament types of Gallatin County 4-H volunteers.
2. Determine individuals motivations to volunteer with Gallatin County 4-H.
3. Determine potential explanatory relationships and magnitude of those relationships between volunteers’ temperament types and motivational factors.

Results

Objective One: Determine the Temperament Types of Gallatin County 4-H volunteers.

The level to which a participant expressed a preference for the four temperament types were measured using the scores provided by the participant. The range of scores differed for each participant; within each of the four temperament types, the possible range was a low of 12 to a high of 48. A higher score indicated a more noteworthy level of dominance for the temperament traits of the four preferences. The primary
temperaments of the Gallatin County 4-H volunteers who participated in the study were illustrated in Figure 1. The most prevalent temperament among these participants was the blue Idealist and the second most populous group was the green Rationals. The temperament analysis yielded the following measures of the preferred color types: 40% blue (Idealist), 27% green (Rational), 20% gold (Guardian), and 13% orange (Artisan).

![Pie chart showing percentages of temperaments]

Figure 1. Real Colors™ Percentages for First Color Preferences of Gallatin County 4-H Volunteers

In comparison, Figure 2 provided a visual of the general population as noted in Kiersey’s research. It was important to note the disparity between the Gallatin County respondents and the general population; the blue Idealists and green Rationals made up the majority of the Gallatin County group, while the orange Artisans and gold Guardians made up the overwhelming majority in the general population, according to NCTI (Johnson, 2005). When comparing the temperament types in the study population to the
general population, the orange were underrepresented and the blues were
overrepresented.

Figure 2. Temperament Percentages among the General Population (Johnson, 2005)

Objective Two: Determine
Individuals’ Motivations to
Volunteer with Gallatin County 4-H.

The perceived motivation preference (achievement, affiliation, and power) was
calculated for participants based on responses to the motivational statements. The
statements were grouped in three categories: achievement, power, and affiliation. After
assigning the statements to subscales, results revealed the volunteers were motivated first
by affiliation, second by achievement, and third by power. These results were consistent
with both Henderson’s (1981) and Fritz’s (2000) findings. The statements were analyzed as individual statements to attain the highest mean score; the low standard deviations indicate importance and central tendency among all volunteers. Table 2 summarized the attitudinal statements within the categories.

Table 2. 4-H Volunteer Responses to Motivation Statement: Frequency, Mean, and Standard Deviation

<table>
<thead>
<tr>
<th>Subscales and attitudinal statements</th>
<th>Not Important at All 0</th>
<th>Somewhat Important 1</th>
<th>Important 2</th>
<th>Very Important 3</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Achievement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am a volunteer in order to gain experience and skills which might lead to employment.</td>
<td>7 5 3 1</td>
<td></td>
<td></td>
<td></td>
<td>.875</td>
<td>.95</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>8</td>
<td>3</td>
<td>1.875</td>
<td>.719</td>
<td></td>
</tr>
<tr>
<td>As a volunteer, I like to receive feedback from members about how I am doing.</td>
<td>0</td>
<td>5</td>
<td>8</td>
<td>3</td>
<td>1.875</td>
<td>.719</td>
</tr>
<tr>
<td>I am a 4-H volunteer because I like the challenge of the task.</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>1.375</td>
<td>1.147</td>
</tr>
<tr>
<td>I am a 4-H volunteer because it is a constructive use of my leisure time.</td>
<td>1</td>
<td>5</td>
<td>7</td>
<td>3</td>
<td>1.75</td>
<td>.856</td>
</tr>
<tr>
<td>I am a 4-H volunteer because it is a task I can do well.</td>
<td>2</td>
<td>2</td>
<td>8</td>
<td>4</td>
<td>1.875</td>
<td>.957</td>
</tr>
<tr>
<td>I am a 4-H volunteer because I want to learn new things.</td>
<td>6</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>1.94</td>
<td>1.06</td>
</tr>
<tr>
<td>I volunteer in 4-H because it is a way to improve my community.</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>12</td>
<td>2.69</td>
<td>.60</td>
</tr>
<tr>
<td>I am a volunteer because I feel an obligation to 4-H because of what it has done for me.</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>1.75</td>
<td>1.24</td>
</tr>
<tr>
<td><strong>Affiliation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am a 4-H volunteer because I want to be with my child(ren) in the 4-H program.</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>1.375</td>
<td>1.41</td>
</tr>
<tr>
<td>As a 4-H volunteer, I prefer to work with groups of people rather than alone.</td>
<td>0</td>
<td>4</td>
<td>10</td>
<td>2</td>
<td>1.875</td>
<td>.619</td>
</tr>
</tbody>
</table>
As a 4-H volunteer, it is important to me that people like me.  
Volunteering in 4-H gives me a chance to meet other volunteers.  
I am a 4-H volunteer because I feel needed in the program.  
I am a 4-H volunteer because I like associating with youth.  
I am a 4-H volunteer because I was personally asked by someone.  
I am a 4-H volunteer because it is a way I can express my caring and concern for others.  
I am a 4-H volunteer because it allows me to be involved in something bigger than myself.  
I am a 4-H volunteer because it affords me opportunities to spend time interacting with others but also allows me time to remove myself for regrouping and refreshing.  
I am a 4-H volunteer because I can work within small-group or individual settings.  
I am a 4-H volunteer because I like helping people.  
I am a 4-H volunteer because it allows me opportunities to share my own experiences.  
**Power**  
I am a 4-H volunteer because I want to have influence over others.  
I am a 4-H volunteer because I want to teach and lead others.  
I volunteer for 4-H because I like to be involved in making decisions and program planning.

<table>
<thead>
<tr>
<th></th>
<th>2</th>
<th>5</th>
<th>6</th>
<th>3</th>
<th>1.675</th>
<th>.957</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a 4-H volunteer, it is important to me that people like me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volunteering in 4-H gives me a chance to meet other volunteers.</td>
<td>1</td>
<td>3</td>
<td>10</td>
<td>2</td>
<td>1.81</td>
<td>.75</td>
</tr>
<tr>
<td>I am a 4-H volunteer because I feel needed in the program.</td>
<td>2</td>
<td>2</td>
<td>9</td>
<td>3</td>
<td>1.81</td>
<td>.91</td>
</tr>
<tr>
<td>I am a 4-H volunteer because I like associating with youth.</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>11</td>
<td>2.56</td>
<td>.727</td>
</tr>
<tr>
<td>I am a 4-H volunteer because I was personally asked by someone.</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>1.19</td>
<td>1.17</td>
</tr>
<tr>
<td>I am a 4-H volunteer because it is a way I can express my caring and concern for others.</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>9</td>
<td>2.38</td>
<td>.81</td>
</tr>
<tr>
<td>I am a 4-H volunteer because it allows me to be involved in something bigger than myself.</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>9</td>
<td>2.38</td>
<td>.81</td>
</tr>
<tr>
<td>I am a 4-H volunteer because it affords me opportunities to spend time interacting with others but also allows me time to remove myself for regrouping and refreshing.</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td>4</td>
<td>1.875</td>
<td>.88</td>
</tr>
<tr>
<td>I am a 4-H volunteer because I can work within small-group or individual settings.</td>
<td>2</td>
<td>3</td>
<td>10</td>
<td>1</td>
<td>1.625</td>
<td>.81</td>
</tr>
<tr>
<td>I am a 4-H volunteer because I like helping people.</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>8</td>
<td>2.25</td>
<td>.93</td>
</tr>
<tr>
<td>I am a 4-H volunteer because it allows me opportunities to share my own experiences.</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>1.31</td>
<td>1.35</td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.58</td>
<td>.51</td>
</tr>
<tr>
<td>I am a 4-H volunteer because I want to have influence over others.</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>1.56</td>
<td>1.15</td>
</tr>
<tr>
<td>I am a 4-H volunteer because I want to teach and lead others.</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>4</td>
<td>1.81</td>
<td>.98</td>
</tr>
<tr>
<td>I volunteer for 4-H because I like to be involved in making decisions and program planning.</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>1.43</td>
<td>1.09</td>
</tr>
</tbody>
</table>
The following important statements were ranked by highest mean scores.

- I volunteer in 4-H because it is a way to improve my community (M=2.69).
- I am a 4-H volunteer because I like associating with youth (M=2.56).
- As a 4-H volunteer, I enjoy the flexibility of working in projects and activities that I am interested in (M=2.31).
- I am a 4-H volunteer because it is a way I can express my caring and concern for others (M=2.38).
- I am a 4-H volunteer because it allows me to be involved in something bigger than myself (M=2.38).

The statements “I am a 4-H volunteer because I like associating with youth” and “I volunteer in 4-H because it is a way to improve my community” were consistent with Fritz’s findings as being a high motivational factor (2000). Adult volunteers also strongly

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>I receive status in my community because I am a 4-H volunteer.</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>I like being involved in the leadership of the 4-H program.</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>As a 4-H volunteer, I enjoy the flexibility of working in projects and activities that I am interested in.</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>I volunteer because I want to have influence on how young people learn and grow.</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>I volunteer in 4-H because I like to be responsible for 4-H programs.</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>I am a 4-H volunteer because I like to receive recognition for being a volunteer.</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>
agreed with employing values on bettering the environment and bettering the community with their volunteer service (Cleveland & Thompson, 2007).

The following less important statements were ranked by lowest mean scores.

- I receive status in my community because I am a 4-H volunteer (M=0.81).
- I am a volunteer in order to gain experience and skills which might lead to employment (M=0.875).
- I am a 4-H volunteer because I like to receive recognition for being a volunteer (M=1.0).

These results were supported by earlier research. Culp and Schwartz (1999) reported individual recognition was one of the weakest identified motives. Volunteers serving in a youth literacy program identified that volunteering to enhance one's career was of low importance (Schmiesing, Soder, & Russell, 2005).

**Objective Three: Determine Potential Explanatory Relationships and Magnitude of Those Relationships Between Volunteers’ Temperament Types and Motivational Factors.**

The respondents’ raw temperament scores were used to determine if there was a relationship with the motivation subscales of power, achievement, and affiliation. The predictor variables of green, orange, blue, and gold temperament scores from the individual and the motivational average were used to create the graphs to compare the relationship (Figure 3).
Figure 3. Individuals' Raw Color Temperament Scores in Their Primary Motivator (Power, Affiliation, Achievement) by Mean

The variation between the individual temperament scores and the motivation subgroup was assessed using the scatter plots above. The lines did not rise and fall in a comparable trend, resulting in individuals' not having a relationship between the color temperament scores and primary motivator subgroup. Variation between the four (blue, green, orange, and gold) temperament types individual scores in each motivation subgroup indicated the data did not reveal a preference of one specific motivator.

The bar graph (Figure 4) illustrated the frequency of individuals in their preferred temperament type in each motivator group of affiliation, achievement, and power. This revealed the quantity of temperament colors in different categories; there were higher percentages of all colors in affiliation, but blues (Idealist) dominated the category. The
orange (Artisan) dominant motivator was achievement and the largest percentage of greens (Rational) were within the power motivator.

Figure 4. The Primary Motivator and Distribution of Primary Color Temperaments

Falt (1999) noted temperament types would predict preferred motivations that satisfy needs and determine behavior. An analysis of the statements indicated the preferred motivations for affiliation in general were more appealing to all the color temperament types and there was representation of each temperament type in affiliation. Therefore, there was a need to further analyze the motivational statements for relationships based on temperament. Figure 5 graphically represented each individual
within all color scores and the mean scores for the three motivation types. It provided the correlation analysis of the two quantitative values

Figure 5. Temperament Color Score and Motivation Type for Individuals

There was no apparent correlation between the variables; the individual’s motivation mean score did not represent a line based on temperament scores. The correlation was weak to nonexistent in the data set; this data did not reveal any pattern of effect on motivation from temperament type. For this reason, an estimated correlation
coefficient for each plot was unnecessary as no assumptions of a linear relationship existed.

Tables 3 through 6 were created to display associations between specific statements and temperament type. Scores higher than a 2 indicated a central tendency among answers, and a low standard deviation indicated a preference for that motivation statement by that color group.

Table 3. Statements Important/Very Important to Greens Based on the Mean and Standard Deviation

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I volunteer in 4-H because it is a way to improve my community</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>As a 4-H volunteer, I enjoy the flexibility of working in projects and activities that I am interested in</td>
<td>2.75</td>
<td>.5</td>
</tr>
<tr>
<td>I volunteer because I want to have influence on how young people learn and grow</td>
<td>2.75</td>
<td>.5</td>
</tr>
<tr>
<td>I am a 4-H volunteer because I like associating with youth</td>
<td>2.5</td>
<td>.58</td>
</tr>
</tbody>
</table>

Table 4. Statements Important/Very Important to Blues Based on the Mean and Standard Deviation

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I volunteer in 4-H because it is a way to improve my community</td>
<td>2.83</td>
<td>.41</td>
</tr>
<tr>
<td>I am a 4-H volunteer because I like associating with youth</td>
<td>2.83</td>
<td>.41</td>
</tr>
<tr>
<td>I am a 4-H volunteer because it is a way I can express my caring and concern for others</td>
<td>2.83</td>
<td>.41</td>
</tr>
<tr>
<td>I am a 4-H volunteer because I like helping people</td>
<td>2.83</td>
<td>.41</td>
</tr>
</tbody>
</table>
Table 5. Statements Important/Very Important to Oranges Based on the Mean and Standard Deviation

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am a 4-H volunteer because I like associating with youth</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>I am a 4-H volunteer because it is a task I can do well</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Volunteering in 4-H gives me a chance to meet other volunteers</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>I am a 4-H volunteer because I like to receive recognition for being a volunteer</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 6. Statements Important/Very Important to Golds Based on the Mean and Standard Deviation

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am a 4-H volunteer because it affords me opportunities to spend time interacting with others but also allows me time to remove myself for regrouping and refreshing</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>I am a 4-H volunteer because I want to be with my child(ren) in the 4-H program</td>
<td>2.5</td>
<td>.87</td>
</tr>
<tr>
<td>I am a 4-H volunteer because it allows me opportunities to share my own experiences</td>
<td>2.5</td>
<td>.87</td>
</tr>
</tbody>
</table>

Summary

The outcomes from the Real Colors™ training and the motivation survey confirmed that both were factors when analyzing volunteer participation. The results revealed the preferred temperament type for the 4-H volunteer participants to be blue and the least preferred to be orange. Analysis revealed volunteers were most motivated by affiliation. Individual motivation statements provided importance to participating volunteers within their color preference. All temperaments exhibited preference for affiliation motivation statements and had the highest amount of blue (Idealist)
temperament types. Orange (Artisan) temperament demonstrated the highest preference for achievement. Green (Rational) temperaments demonstrated the highest motivation within the power category. There was no pattern leading to an expectation of anything but a weak to non-existent correlation between temperament and motivation. An analysis of the statements provided preferred motivations for each temperament type based on a high mean value.
CHAPTER FIVE: CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Conclusions:

Objective 1: Determine the Temperament Types of Gallatin County 4-H Volunteers.

The results of the temperament type indicated a dominant temperament type preference of blue Idealists among the Gallatin County 4-H volunteer respondents of this study. These individuals tend to be relational, good communicators, sympathetic, and conflict avoiders (NCTI, 2013). The second most populous temperament group type was the green Rationals, who tend to be logical, unemotional, data-driven, and focused on continuous improvement (NCTI, 2013). When compared to the overall population temperament types, it becomes apparent that oranges were underrepresented and blues were overrepresented.

Orange temperament types appreciate constant change, varied responsibilities, directions that allow freedom, opportunity, sharing big ideas but having others take care of the details, wanting to make a difference, completing projects and moving on to the next thing, and lastly wanting to have fun (Johnson, D. 2004). Explanations based on Orange traits for being underrepresented may include that orange temperament types did not find the study fun, that they completed the Real Colors™ training and didn’t respond to the emailed motivation survey, or that Gallatin County 4-H volunteer roles were not appealing to them so they did not participate.
Objective 2: Determine Individuals
Motivations to Volunteer
with Gallatin County 4-H.

The second objective reviewed motivational statements to determine why Gallatin County 4-H volunteers participated. The preference of affiliation by 44% of the participants showed that many volunteers were motivated by affiliation needs. Previous researchers (Henderson, 1981; Rouse & Clausen, 1992; Fritz, et. al, 2003; White & Arnold, 2003) noted the affiliation values were initially an important factor when participating in a volunteer activity. The other benefits that were identified as important statements were: I am a 4-H volunteer because I like associating with youth; I am a 4-H volunteer because it is a way I can express my caring and concern for others; and I am a 4-H volunteer because it allows me to be involved in something bigger than myself.

Objective 3: Determine Potential
Explanatory Relationships and Magnitude
of Those Relationships Between Volunteers’
Temperament Types and Motivational Factors.

No correlation was found when grouping color temperament types scores with the three different motivational factors. This could have attributed to the colors being represented in each subcategory or needing a larger sample size to provide more significant representation of all temperaments.

Recommendations and Implications

When working with a new volunteer or recruiting one, the manager should make a list of strengths, liabilities, leadership, and support for the role with color temperament preference strengths in mind. This supports an understanding of the common goals and
the environment (i.e. project, club meetings, committee work, one-time volunteering), developing a method to monitor progress, offering feedback, and expressing enthusiasm for creating a successful and positive experience (Johnson, 2005).

Culp (2013) suggested exploring individual interests, knowledge, skills, and background for recruitment and selection of volunteers. Screening processes could be coupled with position descriptions, interviews, and orientation for the management of volunteers (McNeely, Schmiesing, King, & Kelon, 2002). Using temperament type traits in developing interests and screening processes may increase recruitment in identified weak areas to produce management strategies for training and supervision to obtain volunteers for longer periods of time.

Tables 7 through 10 provided a summary of each temperament type along with potential volunteer roles, contributions to the roles and ideas for retaining the volunteer. The idealists' (blues) statements of what was important or very important to them included ways to improve community, association with youth, expression of caring and concern for others, and helping people. Blue temperaments (Table 7) were satisfied when many people and materials were in their world. They enjoyed creating peace and paying attention to people. Blues put a high emphasis on being sympathetic and having social and caring relationships. For them, being imaginative is a top priority. Blues are great with the need to contribute and to express feelings (Johnson, 2004). Affiliation provided many factors that influence the blue temperament type. The 4-H volunteer program satisfies this by allowing the adult to be a caring supportive person in the adult-youth relationship.
Table 7. Idealist (Blue) recommendations for 4-H Volunteers Roles for Recruitment and Retention

<table>
<thead>
<tr>
<th>Characteristics of Temperament type:</th>
<th>Volunteer Roles</th>
<th>Contribution to the role:</th>
<th>Retention Ideas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied with many people and things are in their world; Creating peace when problem solving and pay attention to people, feelings and equality; Imaginative; Emphasis on being sympathetic, social and establishing caring relationships; Enjoy working alongside others; Prefer to avoid conflict;</td>
<td>Club Organizational Leader; Committee member; Advocates, Mediators; Mentor; Project Leader with opportunities to work one-on-one and in groups; Social activity planners and coordinators;</td>
<td>Provide component of care and concern. Will welcome new members and accept them; Will want to appease and keep peace as decisions are made. Are good listeners and will listen to concerns, needs, and want to create harmony; Large network of relationships and would be great advocates for recruitment into 4-H for both volunteers and members; Will take the time to listen, nurture, be authentic, and truly care about the mentee; Will take an imaginative approach and focus less on the right/wrong of work and more on inclusion and equal participation;</td>
<td>Provide outlet for discussing feelings and to learn about feelings; Emphasize the influence they have on youth; Allow for anonymous or confidential voting and discussions; Emphasize relationship-building in printed materials for recruiting/retention; Allow them to mentor youth with activities, curriculum, and highlight successes; Allow them to be creative with projects and express of enthusiasm.</td>
</tr>
</tbody>
</table>

Guardians (golds) identified the following statements as important or very important: the opportunity to interact with others but remove myself for regrouping and refreshing; I get to be with my children; and I am allowed to share my own experiences.

Golds (Table 8) value a world that is orderly and clutter-free and the security of knowing
Table 8. Guardian (Gold) recommendations for 4-H Volunteers Roles for Recruitment and Retention.

<table>
<thead>
<tr>
<th>Characteristics of Temperament type:</th>
<th>Potential Volunteer Roles:</th>
<th>Contribution to the role:</th>
<th>Retention Ideas:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order and clutter free; Security in knowing the rules, policies, and how the event will progress; Recognize their own ability to lead; Desire to plan and prepare carefully and thoroughly; Able to work alone and unsupervised; Like to develop new skills and opportunity to use them; Family-oriented, protective of values and tradition;</td>
<td>Club Organizational Leader; Committee chair; Project Leader; Large event planners: fair, achievement night, Rec-Lab, camp; Administrative work requiring organization and detail: registrations, market sale clerk, record-books and activities judges;</td>
<td>Provide structure and order to a 4-H club; Like to be leaders when working with a group, would be useful when searching for leadership and holding a committee office; Likely more willing to lead activities in which their children are involved; Thorough teaching of curriculum; Would be great at thoroughly organizing and planning events with timelines, lists and completing tasks; Will enjoy the responsibilities and goal of accomplishment and keep detailed, organized, and comprehensive records;</td>
<td>Provide written expectations, goals, and club policy; Provide agendas for meetings and trainings; follow agendas; Allow them opportunity to develop and organize materials for projects; Provide freedom to find and use technology, apps, computer programs, etc. for increased efficiency and productivity; allow opportunities for sharing of those productivity enhancers with others; Regular recognition through letters, certificates, and awards.</td>
</tr>
</tbody>
</table>
how events will progress before they start. They appreciate having few unexpected events and surprises and find security in knowing the rules of their job. They will get the job done the way they were trained or as it was outlined for them, or from policy and procedure. They identify accomplishments (a to-do list) and then cross them off when they complete them. Golds tend to emphasize family; therefore, it is be important for them to spend time with their children. They want to help others, which can be achieved by sharing their experiences in 4-H to help a member accomplish his or her goals (Johnson, 2004).

Rationals’ (greens) motives included ways to improve community, flexibility to work on projects and activities of interest, having influence on how young people learn and grow, and associating with youth. Greens (Table 9) tended to be answer-seeking individuals who find pleasure in learning something new or discovering a new way of completing something more efficiently. They relish the opportunity to research and solve problems. They are excited by change but usually do not want to be a director of the change (Johnson, 2005). These attributes could have been viewed by green participants as opportunities to accommodate these traits through their volunteer work. One could perceive that the statement that flexibility and conducting activities are of interest to them because they could conduct research and a problem could be solved by working with youth. The core of 4-H is to guide youth and let them be the director of change. This kind of relationship between a green and a young person would fulfill that trait.
Table 9. Rational (Green) recommendations for 4-H Volunteers Roles for Recruitment and Retention.

<table>
<thead>
<tr>
<th>Characteristics of Temperament type:</th>
<th>Volunteer Roles:</th>
<th>Contribution to the role:</th>
<th>Retention Ideas:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer-seeking individuals who find pleasure in learning something new or discovering a new way of completing something more efficiently; Research and solve problems, inventive, and explore new things; Excited about change but not a director of change; Impatient with routines; Problems are endless possibilities not black and white;</td>
<td>Committee, Council, or Foundation leader; Project Leader; Camp planning committee or activity designer; Chaperone; Ambassador leader, Teen leader, or youth director; 4-H Webpage design;</td>
<td>Provide facts for decision making and make give multiple answers that are researched and use facts so the other members could make a decision; Focus on STEM curriculum, would thrive in helping youth to solve problems and work through STEM projects with meaningful questions; Provide activities that outline obtained strengths from youth; Complete that are a challenge and would take a down-to-earth approach; Focus on being fair and like the one-on-one setting. Would guide youth with logic, objectivity, standards, and principles;</td>
<td>Send out agendas and talking points so they have time to research topics; Show appreciation for their ideas and how it furthers the 4-Her’s learning by doing education; Avoid discussing feelings and discuss the possibility of activities with them; Allow for ingenuity and focus on competency of the activity, project, or skill being taught.</td>
</tr>
</tbody>
</table>

When asked what was important or very important to them, the activators (oranges) specified associating with youth, volunteering being a task they can do well, preferring to work in groups of people rather than alone, gaining a chance to meet other volunteers, and liking to receive recognition for volunteering. Orange temperament types
(Table 10) like an action and risk-taking world. They take on things as they come and require little planning. They appreciate freedom and having the authority to solve problems on the spot. Oranges are dynamic and operative in situations that allow constant change and the ability to act. They appreciate it when decisions can be made quickly, which gives them direction but also freedom to get the job done. Oranges look for opportunity and leadership. If they were unhappy, they will move on and find another position. Oranges are opportunists who do what needs to be done to get the job done (Johnson, 2004). They may find fun in working with youth and groups and in meeting others. They appreciate the excitement and energy that 4-H programming provides and have talent and skill to get the job done. However, oranges were likely to move on and find another position if volunteering was too much work to try and get the job done or if it did not fulfill their fun-loving side.
Table 10. Artisan (Orange) recommendations for 4-H Volunteers Roles for Recruitment and Retention.

<table>
<thead>
<tr>
<th>Characteristics of Temperament type:</th>
<th>Potential Volunteer Roles:</th>
<th>Contribution to the role:</th>
<th>Retention Ideas:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action and risk-taking world;</td>
<td>Club Activity Leader;</td>
<td>Would be great at providing the club meeting activity;</td>
<td>The details already constructed for the role (age, how many, goals, and time);</td>
</tr>
<tr>
<td>Require little planning;</td>
<td>Afterschool program;</td>
<td>Will provide enthusiastic fun lessons that is easy going and can adapt easily;</td>
<td>Grab-N-Go’s that have supplies, curriculum, pre-made evaluations, and tools to make the job easier;</td>
</tr>
<tr>
<td>Freedom and authority to solve problems instantly;</td>
<td>Camp Leaders and Chaperones;</td>
<td>Would stay involved with the multiple and changing activities. Might be able to lead youth with a talent or skill;</td>
<td>Allow exploration of ideas and be a contributor of the big ideas, but recognize that someone else will complete the details;</td>
</tr>
<tr>
<td>Opportunity and leadership;</td>
<td>One-time Activity (fundraising, fair judge, presenters, and action orientated activities) and Programs;</td>
<td>Will take on labor tasks (set-up, take-down, moving supplies, etc.) and will provide excitement with experiential learning;</td>
<td>Would find chaperoning fun and recreate alongside the youth;</td>
</tr>
<tr>
<td>Unhappy, they will move on and find something else;</td>
<td>Project Leader;</td>
<td>Will focus on the action of learning by doing part of the project area. They can work independently and like the freedom to pick their own activities;</td>
<td>Provide lists of things to be accomplished but not necessarily how they need to be done;</td>
</tr>
<tr>
<td>Fun-loving;</td>
<td></td>
<td></td>
<td>Praise them for the work they do.</td>
</tr>
<tr>
<td>Stressed by too many restrictions;</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
By incorporating other factors outlined in this review, the volunteer facilitator could encourage the volunteer with benefits that could be attained. Recruitment efforts should focus on these motivators to highlight specific benefits the volunteer will gain and utilize during his or her contribution to 4-H. Recognizing the achievement motivation of volunteering to improve one’s own community was important, so it is consequently important that the organization and agents highlight accomplishments that positively affect the community. Credit for self-recognition or for years of service was less appealing to the overall group based on the results, so less time should be spent on this motivation factor. Having volunteers complete the motivational survey and positioning them in roles that will provide them the fulfillment and incentive they were seeking should improve retention and longevity of commitment.

It was also important to not assume the statements that were of less value to the surveyed individuals in this study will also be less important to others during their volunteer process. However, knowing the motivations of prospective volunteers would allow tailoring of recruitment communications that would be most attractive to them. For instance, this group identified volunteering to gain experience and skills that might lead to employment as being of little importance to them. Previous research (Ferreira, Proenca, & Proenca, 2012) found similar results but determined that this could have been a characteristic of volunteers who had careers or were no longer in the direct workforce. College students, when asked about furthering their career paths and skills through volunteering, were more interested in this potential benefit (Gage & Thapa, 2012). This further emphasized the use of motivations to become aware of personal goals and constraints that could affect the participation of volunteers within the 4-H program.
The Extension educators would have a better understanding of their volunteers' temperament qualities to develop their volunteer program plan by understanding and appreciating the volunteers’ personal fulfillment after completion of Real Colors™ training. When initiating volunteer training, using multiple tactics to organize, train, and reward volunteers may lead to more success. Instruments such as online learning tools or grab-n-go youth activities allow them to be more productive and efficient. Becoming more familiar with volunteers’ qualities will allow more volunteer temperament traits to be identified. This process will strengthen the overall program. To reach each of these different groups, it is important to recognize that volunteers were trying to obtain growth and fulfillment of their own as they serve 4-H members. Based on the research, volunteer training and support can be used to help them develop, succeed, and serve their purpose as volunteers while increasing the success of the organization.

Implications for additional research:

Further research on motivations, temperaments, and limitations on volunteers who leave the program should be conducted. Additional training opportunities and/or mandates need to be developed using the research tools to verify these results for a multi-county, statewide, or national volunteer population. Additional research could analyze the effects of utilizing volunteers' strengths, liabilities, and leadership. The support (tools) that are developed could yield more insight about effective tools for each temperament type and motivation. This study should be replicated on a larger sample to determine if these results hold true for the population of Gallatin County 4-H Adult Volunteers. Similarly, state 4-H staffs from Montana and beyond should consider using the Real Colors™ instrument and the motivations instrument with their volunteers. Such a data
collection process could be undertaken during a state-wide training or the state’s annual 4-H Congress, with results easily analyzed and made available to county extension staff with the focus on providing the tools for focused recruitment and retention of those valuable volunteers.
REFERENCES CITED


Montana State University Extension- Real Colors™. [PowerPoint slides].


APPENDIX A

CONSENT FORM AND MOTIVATIONAL SURVEY
Consent Form for Participation in a Survey

You are being asked to participate in a survey on 4-H motivations. This is a research project being conducted by Christina McRae-Holland, a student at Montana State University. The survey should take approximately 20 minutes to complete.

PARTICIPATION
Your participation in this survey is voluntary and you can refuse to participate in the research or exit the survey at any time without consequence. You may also decline to answer any survey question(s) if you do not wish to answer them. The participation entails the you will have previously completed the REAL Colors training by a trained professional facilitator. The scores from you the volunteer is a self-perceived color temperament type and will be inquired about at the top of the motivation survey. This will be used to identify if there is a relationship between temperament type (colors) and motivations of 4-H volunteers, not identifying to you the participant in anyway.

BENEFITS
You will receive no direct benefits from participating in this research study. However, little is known about what temperament types and motivations of 4-H volunteers that contribute time with Gallatin and Park County 4-H programs. The Findings from this study should provide additional information and understanding for why people volunteer for 4-H in these two counties.

RISKS
There are no foreseeable risks involved in participating in this study.

CONFIDENTIALITY
Your survey answers will be compiled with no name association, the survey does not collect identifying information such as addresses, emails, or demographics. Therefore, the responses will not be identifiable to you or your answers.

CONTACT
If you have questions about the study or the survey process at any time during the study please contact me Christina McRae-Holland via phone 406.690.2843 or email cmcrae.holland@gmail.com.

Authorization:

- You have read the above information
- You voluntarily agree to participate
• You agree to answer all survey parts truthfully

I ___________________________(name of subject) agree to participate in this research. I may refuse to participate or withdraw my participation in this study at any time. I have received a copy of this consent form for my own records.

Signed by Subject:____________________

Investigator:____________________

Date:____________
You are being asked to complete the following survey about volunteer motivations for 4-H volunteers, participation is voluntary. Please feel free at any time to withdraw from participating in this survey. Your responses will help understand the reasons that people become and remain 4-H volunteers. No personal identity information will be connected to your comments.

Please list the following colors scores from your REAL Colors temperament type self-assessment:

**Green:**__________  **Blue:**__________  **Orange:**__________  **Gold:**__________

1 – Somewhat Important, 2 – Important, 3 – Very Important, 4 – Not Important at all

<table>
<thead>
<tr>
<th>Motivation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am a volunteer in order to gain experience and skills which might lead to employment.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>As a volunteer, I like to receive feedback from members about how I am doing.</td>
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<tr>
<td>I am a 4-H volunteer because I like the challenge of the task.</td>
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<td></td>
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<tr>
<td>I am a 4-H volunteer because it is a constructive use of my leisure time.</td>
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</tr>
<tr>
<td>I am a 4-H volunteer because it is a task I can do well.</td>
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<td></td>
</tr>
<tr>
<td>I am a 4-H volunteer because I want to learn new things.</td>
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<td></td>
</tr>
<tr>
<td>I volunteer in 4-H because it is a way to improve my community.</td>
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<td></td>
</tr>
<tr>
<td>I am a volunteer because I feel an obligation to 4-H because of what it has done for me.</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>I am a 4-H volunteer because I want to be with my child(ren) in the 4-H program.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>As a 4-H volunteer, I prefer to work with groups of people rather than alone.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>As a 4-H volunteer, it is important to me that people like me.</td>
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<tr>
<td>Volunteering in 4-H gives me a chance to meet other volunteers.</td>
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<tr>
<td>I am a 4-H volunteer because I feel needed in the program.</td>
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<tr>
<td>Statement</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>--------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>I am a 4-H volunteer because I like associating with youth.</td>
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<tr>
<td>I am a 4-H volunteer because I was personally asked by someone.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>I am a 4-H volunteer because it is a way I can express my caring and concern for others.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am a 4-H volunteer because it allows me to be involved in something bigger than myself.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am a 4-H volunteer because it affords me opportunities to spend time interacting with others but also allows me time to remove myself for regrouping and refreshing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am a 4-H volunteer because I can work within small-group or individual settings.</td>
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<td></td>
<td></td>
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<tr>
<td>I am a 4-H volunteer because I like helping people.</td>
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<td></td>
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</tr>
<tr>
<td>I am a 4-H volunteer because it allows me opportunities to share my own experiences.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am a 4-H volunteer because I want to have influence over others.</td>
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</tr>
<tr>
<td>I am a 4-H volunteer because I want to teach and lead others.</td>
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</tr>
<tr>
<td>I volunteer for 4-H because I like to be involved in making decisions and program planning.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I receive status in my community because I am a 4-H volunteer.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I like being involved in the leadership of the 4-H program.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>As a 4-H volunteer, I enjoy the flexibility of working in projects and activities that I am interested in.</td>
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<td>Volunteering Reason</td>
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<td>I volunteer because I want to have influence on how young people learn and grow.</td>
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<tr>
<td>I volunteer in 4-H because I like to be responsible for 4-H programs.</td>
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<tr>
<td>I am a 4-H volunteer because I like to receive recognition for being a volunteer.</td>
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</tbody>
</table>
APPENDIX B

INSTITUTIONAL REVIEW BOARD FORM
MEMORANDUM

TO: Christina McRae-Holland and Carl Igo
FROM: Mark Quinn, Chair
DATE: November 24, 2014
RE: "The Relationship between Temporomandibular Joint and Muscle Pain and the Motivations of Grassroots County 4-H Volunteers for Recruitment and Retention Efforts" [CM-11112414-CX]

The above research, described in your submission of November 24, 2014, 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.

X (b) (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of educational practices, or human subjects in such a manner that: (i) the subjects are not subjected to procedures beyond those involved in ordinary educational practices, or (ii) the information obtained from the human subjects is not individually identifiable.

(b) (3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of educational practices, or human subjects in such a manner that: (i) the subjects are not subjected to procedures beyond those involved in ordinary educational practices, or (ii) the information obtained from the human subjects is not individually identifiable.

(b) (4) Research involving the collection or study of existing data, records, documents, records, pathological specimens, or diagnostic specimens. If these sources are publicly available, or if the information is recorded in 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 officials, 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, if wholesome foods without additives are consumed, or if a food is consumed in a food preparation 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.