



Life skill development of Montana 4-H campers
by Kelly Jo Wingard

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in
Agricultural Education
Montana State University
© Copyright by Kelly Jo Wingard (1996)

Abstract:

The purpose of the study was to determine whether or not 1996 Montana single and multiple county 4-H campers were developing Montana 4-H life skills by attending 4-H camps. The survey instrument for both the pretest and posttest was composed of 43 statements that measured life skill development on a Likert-type scale. This factorial, quasi-experimental study measured life skill development of participants in 9 single county 4-H camps and 4 multiple county 4-H camps in Montana. Pretest surveys were administered to participants at the beginning of the camps. Twenty-one days after the end of the camp, participants were sent a delayed posttest to be completed and returned to the researcher.

The responses on the pretest and posttest data were entered into a spreadsheet file using Microsoft Excel (1994). The data was analyzed using SPSS-X (1995). Frequency distributions were calculated on demographic data. A matched pair t-test was used to analyze the life skill development from pretest scores to posttest scores at a 0.05 level to test for significant differences. An analysis of covariance was computed for the posttest with the pretest at a 0.05 level of significance to compare adjusted mean scores with single county camps versus multiple county camps, early versus late responders, and demographic influences.

The data from this study revealed that Montana 4-H camps develop the life skills of fostering a positive self concept, learning decision-making and responsibility for choices, developing an inquiring mind, relating to self and others and acquiring a concern for communities—local and global. It was found that attendance of single county camps versus multiple county camps did not differ in life skill development. Various demographic influences also proved to have a significant effect on life skill development.

LIFE SKILL DEVELOPMENT OF
MONTANA 4-H CAMPERS

by

Kelly Jo Wingard

A thesis submitted in partial fulfillment of the requirements for the degree

of

Master of Science

in

Agricultural Education

MONTANA STATE UNIVERSITY--BOZEMAN
Bozeman, Montana

November 1996

N378
W7268

APPROVAL

of a thesis submitted by

Kelly Jo Wingard

This thesis has been read by each member of the thesis committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

December 10, 1996
Date

Van Skelton
Chairperson, Graduate Committee

Approved for the Major Department

10 Dec 1996
Date

Clayton Marvin
Head, Major Department

Approved for the College of Graduate Studies

12/20/96
Date

RH Br
Graduate Dean

STATEMENT OF PERMISSION TO USE

In presenting this thesis in partial fulfillment of the requirements for a master's degree at Montana State University-Bozeman, I agree that the Library shall make it available to borrowers under rules of the Library.

If I have indicated my intention to copyright this thesis by including a copyright notice page, copying is allowable only for scholarly purposes, consistent with "fair use" as prescribed in the U. S. Copyright Law. Requests for permission for extended quotation from or reproduction of this thesis in whole or in parts may be granted only by the copyright holder.

Signature Kelly J. Wingard

Date 12/20/96

ACKNOWLEDGMENTS

This study would not have been completed without the support and encouragement of numerous individuals. Sincere appreciation to my major advisor, Dr. Shelhamer, for his guidance and support throughout my graduate program. I also wish to express sincere thanks to Dr. Frick and Dr. Cavey for serving on my graduate committee. A special thanks to Dr. Conti for his tutoring in statistics. Appreciation is also expressed to the Montana 4-H Extension Agents who helped make this study possible and the Montana 4-H campers who participated in this study. A special thanks to the Montana State 4-H office and Montana State University Agriculture Education in assisting with various costs of this study.

A very special thanks to all of those who have supported me in completing this degree, particularly Philippe, Adele and my family back in Pennsylvania.

TABLE OF CONTENTS

	Page
LIST OF TABLES	viii
ABSTRACT	xi
 1. INTRODUCTION	 1
The Purpose of the Study	2
Need for the Study	2
Research Questions	4
Assumptions	5
Limitations	5
Definitions	5
 2. REVIEW OF LITERATURE	 7
4-H Program	7
Life Skill Development	9
Fostering Positive Self Concept	10
Learning Decision-Making and Responsibility for Choices	11
Developing an Inquiring Mind	12
Relating to Self and Others	12
Acquiring a Concern for Communities--	
Local and Global	13
Camping	14
Summary	15
 3. METHODOLOGY	 16
Population Description	16
Instrument Design	20
Data Collection	22
Data Analysis	23
Summary	24

	Page
4. RESULTS AND INTERPRETATION	25
Participant Response	25
Demographic Analysis	27
Comparison of Pretest and Posttest Scores on Life Skill Development ...	36
Rationale for Use of Analysis of Covariance Statistic	46
Comparison of Single and Multiple County Camps on Life Skill Development	48
Comparison of Age Groups on Life Skill Development	48
Comparison of Gender on Life Skill Development	51
Comparison of Location of Campers' Homes	53
Comparison of Camp Role on Life Skill Development	54
Comparison of Number of Camps Attended on Life Skill Development	56
Comparison of Age Participants Joined 4-H on Life Skill Development	58
Comparison of Participants' Years in 4-H on Life Skill Development	60
Comparison of Employment on Life Skill Development	62
Comparison of Number of Hours Worked per Week on Life Skill Development	63
Comparison of Time Spent Working with People on Life Skill Development	65
5. CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS	67
Conclusions	67
Implications	69
Recommendations	69
Recommendations for Further Study	70
REFERENCES	72

	Page
APPENDICES	75
Appendix A--Montana County Extension	
Agent Questionnaire Documents	76
Appendix B--Notification of Selected	
Montana 4-H Camps Documents	80
Appendix C--Pretest Survey Documents	84
Appendix D--Posttest Survey Documents	91
Appendix E--First Follow-Up Postcard	97
Appendix F--Second Follow-Up Posttest Documents	99

LIST OF TABLES

Table		Page
1.	Frequency distributions of pretest and posttest response for single county campers	25
2.	Frequency distributions of pretest and posttest response for multiple county campers	26
3.	Frequency distributions of early and late responders	26
4.	Frequency distributions of age of campers	27
5.	Frequency distributions of grade level of campers	28
6.	Frequency distributions of location of campers	29
7.	Frequency distributions of camp role of campers	29
8.	Frequency distributions of number of camps attended by campers	30
9.	Frequency distributions of the age that campers joined 4-H	31
10.	Frequency distributions of the number of years campers have been in 4-H	32

LIST OF TABLES -- Continued

Table	Page
11. Frequency distributions of offices held by 4-H campers	33
12. Frequency distributions of additional youth organization memberships of campers	34
13. Frequency distributions of hours worked per week by employed participants	35
14. Frequency distributions of time spent working with people by employed participants	36
15. Matched-pair <i>t</i> -test comparisons of pretest and posttest scores	37
16. Frequency distributions and matched pair <i>t</i> -tests for statements measuring life skill development of fostering a positive self image	38
17. Frequency distributions and matched pair <i>t</i> -tests for statements measuring life skill development of learning decision-making and responsibility for choices	41
18. Frequency distributions and matched pair <i>t</i> -tests for statements measuring life skill development of developing an inquiring mind	42
19. Frequency distributions and matched pair <i>t</i> -tests for statements measuring life skill development of relating to self and others	44
20. Frequency distributions and matched pair <i>t</i> -tests for statements measuring life skill development of acquiring a concern for communities--local and global	47

LIST OF TABLES -- Continued

Table	Page
21. Analysis of Covariance for posttest with pretest for comparison of single and multiple county camps	49
22. Analysis of Covariance for posttest with pretest for comparison of age groups	50
23. Analysis of Covariance for posttest with pretest for comparison of gender of participants	52
24. Analysis of Covariance for posttest with pretest for comparison of location of participants' homes	53
25. Analysis of Covariance for posttest with pretest for comparison of camp role of the participants	55
26. Analysis of Covariance for posttest with pretest for comparison of number of camps attended by participants	57
27. Analysis of Covariance for posttest with pretest for comparison of age of participants joined 4-H	59
28. Analysis of Covariance for posttest with pretest for comparison of the number of years participants were in 4-H	61
29. Analysis of Covariance for posttest with pretest for comparison of employment of the participants	62
30. Analysis of Covariance for posttest with pretest for comparison of number of hours worked per week by employed participants	64
31. Analysis of Covariance for posttest with pretest for comparison of percent of time spent working with people by employed participants	65

ABSTRACT

The purpose of the study was to determine whether or not 1996 Montana single and multiple county 4-H campers were developing Montana 4-H life skills by attending 4-H camps. The survey instrument for both the pretest and posttest was composed of 43 statements that measured life skill development on a Likert-type scale. This factorial, quasi-experimental study measured life skill development of participants in 9 single county 4-H camps and 4 multiple county 4-H camps in Montana. Pretest surveys were administered to participants at the beginning of the camps. Twenty-one days after the end of the camp, participants were sent a delayed posttest to be completed and returned to the researcher.

The responses on the pretest and posttest data were entered into a spreadsheet file using Microsoft Excel (1994). The data was analyzed using SPSS-X (1995). Frequency distributions were calculated on demographic data. A matched pair t-test was used to analyze the life skill development from pretest scores to posttest scores at a 0.05 level to test for significant differences. An analysis of covariance was computed for the posttest with the pretest at a 0.05 level of significance to compare adjusted mean scores with single county camps versus multiple county camps, early versus late responders, and demographic influences.

The data from this study revealed that Montana 4-H camps develop the life skills of fostering a positive self concept, learning decision-making and responsibility for choices, developing an inquiring mind, relating to self and others and acquiring a concern for communities--local and global. It was found that attendance of single county camps versus multiple county camps did not differ in life skill development. Various demographic influences also proved to have a significant effect on life skill development.

CHAPTER 1

INTRODUCTION

In the early 1900's, the first leaders of 4-H saw the need for practical programs for young people. These leaders' ideas received strong backing in 1908 when the Country Life Commission urged practical education for young people and the development of new, young rural leadership. Since that time, 4-H has grown into the best known of all extension programs and one of the most highly respected youth programs (Rasmussen, 1989). As evidence of this growth, there were approximately 11,915 4-H members in organized clubs in 1995-96. Sixteen 4-H camps were identified that occurred in Montana each summer, and an estimated 1,167 4-H members age 11 and older attended these camps. With these large numbers involved in 4-H camps, the Montana State Extension staff felt that subsequent skills gained through attending 4-H camp need to be researched.

The Montana 4-H Youth Development Program Summary (Montana State 4-H Staff, 1993) states that the future focus of Montana 4-H shows that life skill education is identified as a major need in order to continue effective education for youth and adults. Further, this program states that life skills will be the basis for education and decision making. It is the Montana 4-H Youth Development Program's objective to design and implement a variety of methods through which youth can be involved in 4-H and develop life skills.

It is with this objective in mind that the Montana State 4-H Staff requested that the researcher examine existing Montana 4-H camp programs to determine whether or not they are fulfilling the objectives of Montana 4-H life skills development. It was because of this request and the lack of quantitative data on 4-H activities that the researcher chose to study the life skills development of Montana 4-H campers.

The Purpose of the Study

The purpose of the study was to determine whether or not 1996 Montana single and multiple county 4-H campers were developing Montana 4-H life skills by attending 4-H camps. The Montana 4-H life skills were as follows: fostering positive self concept, learning decision-making and responsibility for choices, developing an inquiring mind, relating to self and others and acquiring a concern for communities -- local and global.

Need for the Study

In 1983, a committee representing the Extension Service, United States Department of Agriculture, National 4-H Council and North Carolina State University along with the assistance of the state 4-H leaders reported that "More than ever, youth need effective educational programs to help them succeed in a rapidly changing and complex society" (Rasmussen, 1989, p. 175).

The objective of the 4-H program is to develop personal growth as well as knowledge and technical skill development (Astroth, 1996). Although measuring knowledge and technical skill development, such as naming the parts of a horse or building a rocket is relatively easy, measuring personal growth is very difficult. Some important issues to consider when attempting to measure personal growth is what contributed to the development; whether it was a 4-H summer camp, a summer job, or a different youth program such as scouting or FFA. In addition, it is difficult to determine which factors contributed most to the development of a particular belief, attitude, or value (Astroth, 1996). The 4-H program is supposed to develop the following skills in young people: fostering positive self-concept, learning decision-making and responsibility for choices, developing an inquiring mind, relating to self and others, and acquiring a concern for communities--local and global. Unfortunately, little research exists on the effectiveness of programs like 4-H to enhance such skills.

In a study conducted by Cantrell, Heinsohn and Doebler (1989), teens were asked to evaluate their 4-H program experiences following four years of teen programming emphasis. This study showed a positive and significant relationship to the teens' life skill development in leadership, personal development and citizenship. Whether or not the development of these skills was directly attributable to just the 4-H program is difficult to determine due to all the other factors that affect development such as after school activities, other youth organizations and summer jobs. In a study conducted by Ludewig and Thomas (1987), alumni reported that

the 4-H program contributed significantly to their personal development. Once again, self report on long term development is not hard evidence that 4-H was the largest contributor to life skill development.

Life skill development as a result of attending camp is an area which is nearly untouched by research. In reviewing previous research, it was discovered that life skill development as a result of camp was either based on technical skills, such as rowing a boat or riding a horse, or was based on self report long after attending the camp (Diem, 1988 and Chenery, 1990): The lack of knowledge base of the Montana 4-H program accomplishing life skill goals leads to a need for research in life skill development in Montana 4-H camps.

Research Questions

The following research questions were formulated to aid in the development of this study:

1. What changes in life skill development occur as a result of participation in 4-H camps?
2. To what extent do patterns of life skill development vary between single and multiple county camps?
3. What demographic information influences life skill development?.

Assumptions

This study was based on the assumption that 4-H campers develop life skills as a result of Montana 4-H camps.

Limitations

The researcher was aware of the following limitations of the study; the population of the study were 4-H members who are over the ages of 10 years and attended a single or multiple county Montana 4-H camp in June of 1996.

Definitions

To assure a common understanding of the terms in the study, the following definitions were considered essential:

1. Fostering positive self concept - the development of perceptions by young people that they are capable, significant, and influential in relationships with others.
2. Learning decision-making and responsibility for choices - the uses of knowledge, skills and values in identifying, defining, and analyzing problems and then selecting from alternative solutions, and knowing that they must accept responsibility for the choices they make.

3. Developing an inquiring mind - the use of mental stimulation, curiosity, and enthusiasm for finding out about the world and its people.
4. Relating to self and others - exploring one's values and attitudes, communicating information and feelings, respecting differences among others, dealing with conflict, and applying democratic practices on problem solving.
5. Acquiring a concern of communities -- local and global - an awareness of our interdependent social communities -- both local and global, learning to respect differences, and assuming a responsibility to help improve the community's quality of life.

CHAPTER 2

REVIEW OF LITERATURE

The review of the literature covered three sections: (1) the 4-H program; (2) life skill development; and (3) camping. These three sections laid the basis and supported the need for the study.

4-H Program

According to Rasmussen (1989), 4-H's roots trace back as early as 1900 when young people in Macoupin County, Illinois were encouraged to plant selected corn seed and compete for prizes in the fall. In 1902, boys' and girls' clubs were organized in Clark County, Ohio. By 1910, the idea of boys' and girls' clubs had spread throughout the country and were devoted to such agricultural subjects as corn, hogs, gardens and canning. The idea of these youth clubs received strong backing from the Country Life Commission of 1908 which urged practical education for young people as well as the development of new, young rural leadership (Rasmussen, 1989). From the beginning, 4-H's purpose has been to develop not only the technical subject-based knowledge needed to solve practical everyday problems, but also the intra-personal and interpersonal skills to make effective use of such knowledge in youth. These life skills are considered to be essential for youth to become competent,

contributing citizens in society (Astroth, 1996). These life skills have become the basis for the development of the 4-H name and emblem. Character is not built by the 3 R's but rather the 3 H's - Head, Heart and Hands (Reck, 1951). In addition, O. H. Benson of Iowa suggested using a fourth "H" stating that a 4-H person would be "a leader with a head trained to think, plan and reason; with a heart to be true, kind and sympathetic; and with hands trained to be useful, helpful and skillful; and the hustle to render ready service to develop health and vitality" (Reck, 1951, pp. 96-97). "Health" was added as the official fourth H later that year. Four-H stands for head, heart hands and health which symbolizes the development of well-rounded youth (Astroth, 1996). Benson began using three and four-leaf clover emblems and then brought that idea to Washington. The four-leaf clover, with an "H" on each leaf became the permanent symbol of 4-H by the end of 1911. In 1912, club and youth demonstration work enrolled 93,000 youth (Rasmussen, 1989).

During the first World War, Congress appropriated large sums for Extension to secure increased food production from America's farmers. With fathers off to war and mothers entering the work place, Extension leaders realized that the best way to increase food production was to expand club work among rural youth. By 1918, 4-H membership grew to 500,000 (Rasmussen, 1989).

Today the 4-H program has evolved to serve all youth - urban and rural - regardless of occupation of parents or color of skin. As of 1984, nearly 5 million youth ages 9 to 19

were enrolled in the 4-H program (Collins, 1984). Project areas in 4-H today vary from livestock, cooking, sewing, and gardening to fishing, rocketry, leadership and orienteering. The objective of the 4-H program according to the 4-H in Century III Task Force of ECOP Subcommittee on 4-H, "includes encouraging young people to develop inquiring minds, an eagerness to learn, and the ability to apply science and technology; to learn practical skills and acquire knowledge; to maintain optimum physical and mental health; and to increase leadership capabilities" (Rasmussen, 1989, p. 175). According to a committee representing the Extension Service, USDA; National 4-H Council, North Carolina State University and state 4-H leaders of 1983; "more than ever, youth need effective educational programs to help them acquire the life skills necessary to grow and succeed in a rapidly changing and complex society" (Rasmussen, 1989, pp. 175-176).

Life Skill Development

Four-H was designed from the beginning to provide out-of-school technical and personal development education to rural youth. The goal of personal development is referred to as life skill development. Hamburg (1990), a member of the Carnegie Council on Adolescent Development stated that life skills training can be "conceptualized as the formal teaching of the requisite skills for surviving, living with others and succeeding in a complex society" (p. 18). These skills enable youth to function as competent, productive and contributing members of society (Weatherford & Weatherford, 1987). Therefore, the 4-H

program's goal of life skill development is intentional rather than accidental (Astroth, 1996). The 4-H curriculum focuses on technical skill and personal growth development. Although the focus of the program is clear, its success is difficult to measure. The development of technical skills is relatively simple to evaluate. Riding a horse, building a rocket, sewing a dress or keeping records are all tangible products or outcomes that can be measured objectively against a known standard (Scriven, 1980). Measuring personal growth is not an easy task though. It is often difficult to determine if development occurred as a result of formal or non-formal education, and even more difficult to discover which factors contributed most to an individual's beliefs, attitudes or values (Astroth, 1996).

Fostering Positive Self Concept

In explaining the meaning of fostering positive self concept, we must first look at how it is defined by the Montana State 4-H Staff (1993). Fostering positive self concept is the development of perceptions by young people that they are capable, significant, and influential in relationships with others.

In a 1981 study (Steele & Rossing) on the effectiveness of 4-H programs attaining Century III objectives, the researchers explained that 4-H programs seemed to be achieving these objectives especially well in the area of 4-H members acquiring positive attitudes toward self and a feeling of self-worth. These 4-H teens also perceived that 4-H provided a

significant contribution of pride in accomplishment and self-confidence to their personal development.

In related research, Ladewig and Thomas (1987) of Texas A & M conducted an adult assessment of social learning experiences during adolescent participation in 4-H and other youth programs. This national telephone survey of 4-H alumni revealed that 4-H membership was rated by alumni as having a high positive influence on self image. A slight majority of the 4-H alumni rated their 4-H experiences over other organizations as developing a feeling of self worth. Alumni perceived themselves as more satisfied with their personal development than did participants in other youth organizations.

Learning Decision Making and Responsibility for Choices

According to the Montana State 4-H Staff (1993), learning decision making is defined as the use of knowledge, skills and values in identifying, defining, and analyzing problems and then selecting from alternative solutions. In addition, the Montana life skills state that the 4-H member must accept responsibility for the choices he or she makes.

In the national survey from Texas A & M, Ladewig and Thomas (1987) reported that a slight majority of the adults who participated in 4-H as adolescents rated their 4-H experiences higher than their non-4-H experiences in the areas of gaining knowledge and skills. In the same study on adult assessment of their adolescent youth program involvement, it was found that the largest contributions that the past 4-Hers perceived to their personal

development was developing a sense of responsibility. Further, both past 4-H members and non-4-H members agreed that knowledge and skills obtained through participation in youth organizations had benefited them in adult life. Also, Pennsylvania State University's teen life skill survey (Heinsoln & Cantrell, 1987) participants perceived their major influencing factor in taking responsibility for a group to be due to 4-H above school, home, and other influences.

Developing an Inquiring Mind

The Montana State 4-H Staff (1993) defines developing an inquiring mind as utilizing mental stimulation, curiosity, and enthusiasm for finding out about the world and its people. In 1981, Steele and Rossing found that 4-H youth had moderate or mixed recognition for 4-H developing inquiring minds, an eagerness to learn and the ability to apply science and technology.

Relating to Self and Others

In relating to self and others, the Montana State 4-H Staff (1993) stresses that you need to look at the behaviors that explore one's values and attitudes, communicate information and feelings, respect differences among others, and deal with conflict, when you are attempting to apply democratic practices in problem solving. In a 1987 study from Texas A & M (Ladewig & Thomas) on adult assessment of their adolescent youth program

involvement, it was found that the largest contributions that the past 4-H members perceived to their personal development was learning to work with others. In the same study, past 4-H members who were also in other youth organizations were asked to compare the influences. In the area of communication skills, 4-H rated higher than other youth programs.

In a 4-H teen participant survey (Heinsohn & Cantrell, 1986), the participants perceived the major influencing factor in working cooperatively in groups and working cooperatively with younger children and adults to be due to 4-H above school, home, and other influences. This study also found that expressing your thoughts before others and feeling comfortable in a new situation were due to 4-H and were rated above school, home and other influences.

Acquiring a Concern for Communities -- Local and Global

The Montana State 4-H Staff (1993) defines acquiring a concern for communities as an awareness of our interdependent social communities -- both local and global, learning to respect differences, and assuming a responsibility to help improve the community's quality of life.

Ladewig and Thomas (1987) found that 4-H alumni tended to be more involved in community activities and leadership positions than those who were in other youth programs. In the same study on adult assessment of their adolescent youth program involvement, they

perceived that 4-H contributed significantly to community involvement in their personal development as an adult.

Heinsohn and Cantrell (1986) found that the participants perceived their major influencing factor in participating actively in the community, community service and action, social recreation skills and cultural education all to be due to 4-H. Four-H was rated above school, home, and another influence. No research was found in the area of 4-H or other youth organizations affecting learning to respect differences in cultures, races and disabilities.

Camping

The 4-H camping program was conceived to provide personal and technical skill education in a recreational setting. In an article about 4-H recreation and its teaching potential, Cranford (1974) stated that teaching recreation is an ideal method to create interest and self-motivation. The author went on to explain that learning will occur more readily when information is presented in an interesting and enjoyable way.

Research in the area of life skill development through camp is limited. In 1989, an Iowa 4-H survey of 51 parents of campers, parents perceived that the areas of self-confidence, independence, ability to develop friendships and enjoyment of the outdoors greatly improved in their children as a direct result of camp. The parents also perceived slight improvements

in the areas of leadership, cooperation, tolerance for others, caring for others, and the ability to start and complete projects.

In related research, Chenery (1991) primarily asked how participation in an organized resident camp program contributed to the development of positive attitudes and skills and of caring social behaviors in youth. The outcome statements included independence and self-reliance, self discipline, motivation, not to be so lazy, to challenge myself, to be more willing to do things as well as many other personal development skills. Although a review of this literature has found that camp does contribute to life skill development, these studies were based on the perception of past development.

Summary

This review of the literature shows that life skills are developed as a result of the 4-H program. Unfortunately, these results are all based on the participants hindsight of their perception of development. In order to determine if life skill development occurs as a result of the 4-H program or from other influences, the participants must be tested previous to the influence of the 4-H program and then after the program is completed. In doing this, life skill development as a direct result of the 4-H program can be measured as well as to what degree this life skill is being developed.

CHAPTER 3

METHODOLOGY

The study was designed to determine the life skill development of Montana 4-H campers as a result of attending Montana 4-H camps. The methods and procedures to be used in the study are described in this chapter. The methodology chapter was organized into five sections. These sections were (1) population description, (2) instrument design, (3) data collection, (4) data analysis, and (5) summary.

A factorial quasi-experimental study was planned based on a design described by Borg and Gall (1989). The intention of this study was to identify factors that affect life skill development of Montana 4-H camp participants.

Population Description

Due to the large variety of 4-H camps in Montana, there was no accurate, up to date information as to the number of 4-H members who attended camp. In order to compile this information, a Montana County Extension Agent Questionnaire (Appendix A) was sent to each agent in the state in hopes of receiving a 100 % return. The researcher requested and

received verbal permission and endorsement from the Montana 4-H Youth Development Specialist, Mike Cavey to survey Montana County Extension Agents.

The Montana County Extension Agent Questionnaire, a cover letter stating the purpose of the questionnaire, and a questionnaire instruction sheet were mailed to each county extension office in the state on April 24, 1996. Dr. Cavey felt that the agents would be more likely to respond to the questionnaire if it were received from the state office, therefore, these three documents were mailed to each extension agent through the Montana State Extension Office.

The purpose of the Montana County Extension Agent Questionnaire was to gather data from each county including: name of county agent, county or counties the agent serves, number of 4-H members in the county(ies), number of 4-H summer camps, and information on each camp. The questionnaire also asked if the county agent would be willing to assist the researcher in the study and if the agent said no, the camp was not used in the study.

Unfortunately, only 26 of the 55 Montana agents responded to the questionnaire. Dr. Cavey, Montana 4-H Specialist, stated that several of the county agents who did not respond to the questionnaire may not have a 4-H camp that their 4-H members attended. Due to the time frame for collecting data, no follow-up to obtain more information was used. Because of the low response rate and time frame, accurate figures of the total number of 4-H members who attended 4-H camp could not be obtained. Therefore, the total population size was

unknown and was based on the total population calculated as a result of the returned Montana Extension Agent Questionnaire.

Nine single county camps and six multiple county camps were selected to participate in the survey. If an extension agent served more than one county, it was assumed that these 4-H members function as one county and are therefore analyzed as a single county camp. According to the results of the Montana County Extension Agent Questionnaire, these fifteen camps, which are longer than one day, make up 100% of Montana 4-H camps that occur in June. As a result of the agent responding to the Montana County Extension Agent Questionnaire, the researcher had sufficient knowledge about the camp participation to conduct the study.

Monetary and time constraints as well as the fact that later camps would result in conflicts between posttest data collection and the beginning of school, led to the decision of utilizing only camps that were longer than one day in length and occurred in June. After compiling the questionnaire data and selecting all June camps that were more than one day in length, a letter of notification to all extension agents was mailed out on May 30, 1996. This mailing included a cover letter, a list of selected single county camps and a list of selected multiple county camps (Appendix B). These lists included the name of the camp, date, director, county, location, length, focus and number of campers ages 11 and up. Agents were instructed to examine these lists for correctness and to notify the researcher of any inaccurate information.

Due to a lack of transportation, money and time, the researcher could not attend all 15 of the selected Montana 4-H camps. In order to reduce costs, the researcher had to rely on a third person to administer the pretest at each of the selected camps. The people chosen to administer the survey were the camp directors of each camp. The directors indicated on the Montana County Extension Agent Questionnaire if they were willing to assist in the study. The researcher did attend three of the camps and administered the pretests to the participants.

Four of the fifteen selected camp directors did not administer the pretest and the camps were therefore dropped from the study. One of the four camps was dropped from the study because the researcher did not mail the pretest surveys in ample time for the mail to deliver the materials. Participants of two single county camps that occurred in the same county, back to back, did not get the opportunity to complete the survey. The agent was out of the office a few days prior to the camp's occurrence, and did not receive the pretests until both of the camps were completed. The fourth and final camp whose participants did not complete the pretest was a multiple county camp. The camp director, upon looking over the survey, decided that the survey was not appropriate for 8 and 9 year olds which according to the survey instructions, the survey was not intended for. The director also felt that a survey of life skill development was not appropriate for a camp whose focus was outdoor education. Therefore, these campers were not given the opportunity to participate in the study.

Upon the return of all the pretests from the extension agents, it was found that 80% of the 4-H campers that attended camps in June and were age 11 or older completed the pretest.

The starting dates of the selected single and multiple county 4-H camps varied from June 6 to June 30 and were two to five days in length. Due to the loss of participation from the four camps mentioned previously, 4-H campers from 28 counties participated in the study rather than the 33 counties that were identified.

Although county agents reported what they felt were accurate numbers of 4-H members who would attend camp, of the expected 213 campers in selected single county camps, there were only 133 4-H campers age 11 and older who attended these camps. In addition, of the expected 245 campers in selected multiple county camps, there were only actually 180 4-H campers age 11 and older who attended these camps.

Instrument Design

The pretest survey instrument (Appendix C) was divided into three sections. The first section listed 43 behaviors. The list of behaviors was developed from related literature review and experience of the researcher. One instrument that listed behaviors appropriate to the study was used with the permission of Timothy Rollins (1993). Each of these 43 behaviors have been approved by a group of experts as being characteristic of one of the five Montana 4-H life skills. These behaviors were improved upon through a group of experts comprised of the researcher, members of the graduate committee, a developmental psychologist and a middle school guidance counselor. The instrument was pilot tested on 26 participants, all 4-H

campers who were age 11 and older at a 1995 Montana 4-H camp and the camp director completed the survey. Reviewers were asked to evaluate the instrument for editorial changes, and to review the directions, statements and demographic questions for ease of response and clarity. No major changes were suggested. Respondents felt that the time of 20 minutes was accurate for completing the survey. The directions were determined to be useful and easily understood.

Through the efforts of the experts, the survey was approved as a valid instrument in measuring Montana 4-H camp life skill development. The delayed posttest was composed of the same questions as section one in the pretest with a section for the participants to write additional comments. The participants were asked to circle the response that best described them according to a 6 point Likert-type scale varying from strongly disagree to strongly agree.

Fourteen demographic questions comprised the second section. These were related to age, grade, gender, ethnic background, location (rural vs. urban), camp role, previous camp attendance, age when joined 4-H, number of years in 4-H, 4-H offices held, additional youth organizations, employment, hours worked per week, and percentage of time working with people.

The third section dealt with follow-up procedures. Participants were requested to print their initials, birth date and complete mailing address on the lines provided so that a posttest could be sent to them.

Data Collection

On May 30, 1996, a letter of notification was sent to all Montana County Extension Agents informing them of the selection of single and multiple county 4-H camps that would be surveyed in this study (Appendix B).

Beginning with the June 6 camp, each camp director was sent a letter explaining the survey implementation instructions, pretest cover letters and pretest survey instruments (Appendix C). The number of survey instruments mailed matched the number of 4-H campers ages 11 and over that were expected to attend (according to the Montana County Extension Agent Questionnaire) plus an additional ten to fifteen cover letters and pretests in case of increased attendance.

The camp directors were requested to set aside 20 minutes at the beginning of camp to implement the pretests. Directors were to return the completed surveys to the researcher at their earliest convenience in the self addressed, postage paid envelope provided.

Upon receiving the completed pretests from the camp directors, the initials, birth date and mailing addresses were entered into a data base for posttest and follow-up purposes. The first posttest and cover letter (Appendix D) were mailed out so that the participant would receive the survey 21 days after the last day of the camp. This 21 day period would allow adequate time for a behavioral change as a result of the camp. After 10 days, non-responders were sent the first follow-up reminder postcard (Appendix E). A second follow-up in the form of a

cover letter and posttest (Appendix F) were mailed after an additional 10 days of non-response. Each 4-H camper was assigned a code number that appeared on each posttest they received so that response time and follow-up procedures could be used.

Data Analysis

Responses from the surveys were entered into a spread sheet file using Microsoft Excel (1994). The personal computer version of the Statistical Package for the Social Sciences (SPSS-X) (1995) was used for analysis. A Cronbach's Alpha statistic was computed to determine the reliability of the survey instrument. A reliability coefficient score of .7 or greater is considered a reliable measure. The statements that measured the life skill of fostering a positive self concept had a pretest reliability coefficient score of .74 and a posttest score of .76. The life skill of learning decision-making and responsibility for choices had a pretest reliability coefficient score of .50 and a posttest score of .37. In addition, it is important that the interpretation of results be done carefully for this life skill due to the lack of reliability of the instrument. The statements that measured the life skill of developing an inquiring mind had a pretest reliability coefficient score of .74 and a posttest score of .69, both of which are considered reliable. The statements that measured the life skill of relating to self and others had a pretest reliability coefficient score of .83 and a posttest score of .86. The statements that measured the life skill of developing a concern for communities--local and

global - had a pretest reliability coefficient score of .89 and a posttest score of .86, both of which are considered reliable.

A matched-pair t -test was administered to compare the means of pretest and posttest scores on the five Montana life skills. An Analysis of Covariance was used to compare means between single county campers and multiple county campers as well as to test differences between early and late respondents before grouping them together. An ANCOVA was also used to evaluate life skill development as it relates to demographic influences.

Summary

This was a factorial quasi-experimental study of Montana 4-H camps on life skill development. The population was stratified by Montana single and multiple county 4-H camps. A pretest and delayed posttest were used as the data collection instruments. Forty-three behaviors were identified as indicators of life skill development as agreed upon by a group of experts. A pilot study was used to validate and test the survey instrument.

Responses to the statements and questions were analyzed by a personal computer statistical package. A matched pair t -test was used to compare pretest and posttest data on each of the life skills. An Analysis of Covariance was used to compare means between groups of single and multiple county camps, early and late responders and demographic data.

CHAPTER 4

RESULTS AND INTERPRETATION

To facilitate the presentation and interpretation of the results of the study, the researcher chose to describe the response rate for characteristics and demographics of the respondents and interpret the overall results for each life skill.

Participant Response

A total of 7 single county camps and 4 multiple county camps participated in the study. Table 1 and Table 2 show the frequency distribution of the pretest and posttest response for each camp in the study.

Table 1. Frequency distributions of pretest and posttest response for single county campers.

Camp Name	Pretests	Unusable pretests	Posttests	Percent Return
Valley Co. Camp	7	1	4	57
Camp Sew-Wear	2	0	1	50
Park Co. 4-H Camp	39	3	27	69
Kidz Daze	19	0	13	68
Phillips Co. 4-H Camp	20	0	17	85
Junior Camp	11	0	8	73
Silver Bow 4-H Camp	22	1	16	73
Total	120	5	86	72

A pretest was completed by 100% of all 4-H campers over the age of eleven who attended these camps for a total of 313 completed surveys. As indicated in Table 1 and Table 2, 17 (5 +7) of the participants were not included in the study. These respondents were not used because the addresses given were incomplete, therefore the researcher could not collect posttest data.

Table 2. Frequency distributions of pretest and posttest response for multiple county campers.

Camp Name	Pretests	Unusable pretests	Posttests	Percent Return
Camp Needmore	82	9	62	76
Multi-Co. 4-H Camp	54	1	41	76
Westmont	22	0	18	82
Multi-Co. 4-H Camp	18	2	16	89
Total	176	12	137	78

A posttest was sent to each of the remaining 296 participants 21 days after each camp was over. The researcher received 223 surveys back resulting in a return rate of 72% (86) for the single county camps and 77% (137) for the multiple county camps. Due to the lack of returns on the posttests, 25% (76) of the pretests could not be used in the matched pair analysis. The information in Table 3 shows the response rates of the participants.

Table 3. Frequency distributions of early and late responders (N=223).

Response Rate	n	%
Early	170	76.2
Late	53	24.8

An analysis of covariance, which is not revealed in Table 3, was computed to compare the respondents adjusted posttest scores to their response rates. The result of the analysis of covariance at the alpha level of 0.05 was that there was no significant difference in life skill development between early and late responders for any of the five life skill areas. The p-values varied from .326 to .985.

Demographic Analysis

Due to the incompleteness of the respondents' surveys, the number of the responses varies in each table. Among those (220) who gave their gender, 30.0% (67) were male and 68.6% (152) were female. The age distribution is presented as frequencies in Table 4. The 11 and 12 year olds constituted 54.7% (n=122) of the participants. The older respondents were underrepresented as 45.3% (n=101) were 13 to 19 years old. The mean age was 12.88.

Table 4. Frequency distributions of age of campers (N=223).

Age (years)	n	%
11	77	34.5
12	45	20.2
13	27	12.1
14	18	8.1
15	25	11.2
16	22	9.9
17	8	3.6
19	1	.4

The distribution of age was also reflected in the grade levels of the participants as shown by the data in Table 5. Frequency distributions of 11 year olds (77) and those respondents in 5th and 6th grade (69) were nearly equivalent. The number of 12 and 13 year olds (72) was distributed similarly to 7th and 8th graders (82). The number of 14, 15 and 16 year olds (65) closely matched the number of 9th, 10th, and 11th graders (60). Seventeen through 19 year olds were distributed in the same manner as 12th graders and college students with percentages of 4.0 and 4.5 respectively.

Table 5. Frequency distributions of grade level of campers (N=221).

Grade Level(in school)	n	%
5th	5	2.3
6th	64	29.0
7th	58	26.2
8th	24	10.9
9th	14	6.3
10th	18	8.1
11th	28	12.7
12th	8	3.6
Some College	2	.9

As the researcher suspected, the distribution of race was 74.4% (166) White, not of Hispanic origin. Of the 222 responders to this question, 19.7 % (44) were not sure of their race. Other ethnic groups represented at these camps included 2.7 % (6) American

Indian/Alaska Native, .9% (2) Asian or Pacific Islander, and 1.8 % (4) Hispanics. The researcher was surprised that there was no (0) representation from the Black ethnic group.

The distribution of where the responders live is represented in Table 6. The majority (56.1%) of the 4-H campers live on a farm or ranch. In addition, the 4-H program of Montana is focused on agriculture projects more than urban projects.

Table 6. Frequency distributions of location of campers (N=221).

Location	n	%
On a farm or ranch	125	56.1
Rural, not an a farm or ranch	57	25.6
In town	39	17.5

The frequency distribution of the 4-H camper's role at camp is represented in Table 7. The majority (68.6%) of the participants were simply 4-H campers. A very small percent (5.4%) of campers were not 4-H members. The remaining 24.6% (11.2% + 13.0% + .4%) had leadership roles which affected the camping experience for the 4-H and Non 4-H campers.

Table 7. Frequency distributions camp role of campers (N=211).

Camp Role	n	%
4-H Camper	153	68.6
Camp Counselor	25	11.2
Junior Leader	29	13.0
Camp Planner	1	.4
Non 4-H Camper	12	5.4

The frequency distribution of the number of camps attended by campers is represented in Table 8. Campers were asked to indicate the number of camps that they have attended including this camp.

Table 8. Frequency distributions of number of camps attended by campers (N=207).

Camps Attended	n	%
1	46	22.2
2	51	24.6
3	28	13.5
4	23	11.1
5	12	5.8
6	8	3.9
7	10	4.8
8	7	3.4
9	3	1.4
10	9	4.3
11	3	1.4
12	3	1.4
13	1	0.5
21	1	0.5
25	2	1.0

Nearly 50% (22.2% + 24.6%) of the campers indicated that this camp was their first or second camp that they had attended. An additional 24.6% (13.5% + 11.1%) indicated that this was their third or fourth camp. The remaining responders had indicated that they had attended 5 or more camps with the maximum being 25. The average number of camps attended was 4.0.

Campers who indicated that they were 4-H members were asked their age when they first joined 4-H. These frequency distributions are shown in Table 9. Almost 7% (0.5% + 1.0% + 5.2%) of the 210 respondents joined 4-H before the age of 8.

The 4-H program requires that youth be 8 years of age before joining 4-H; therefore the researcher believes that these campers joined 4-H through a special program offered in their counties for those younger than 8 years of age. Most of the 4-H members (30.5% + 34.9%) joined 4-H at either age 8 or age 9 with an average joining age of 9.1.

Table 9. Frequency distributions of the age that campers joined 4-H (N=210).

Age Joined 4-H	n	%
5	1	0.5
6	2	1.0
7	11	5.2
8	64	30.5
9	73	34.8
10	30	14.3
11	12	5.7
12	10	4.8
13	3	1.4
14	3	1.4
15	1	0.5

The 4-H members also indicated the number of years that they had been in 4-H. These frequency distributions are shown in Table 10. Of the 211 respondents to this question, 77.1% (4.7% + 16.1% + 22.7% + 22.7% + 10.9%) had been in 4-H between 1 and 5 years.

Four-H members who had been in 4-H for more than 5 years were underrepresented with decreasing frequencies as the years increased.

Table 10. Frequency distributions of the number of years campers have been in 4-H (N=211).

Years in 4-H	n	%
1	10	4.7
2	34	16.1
3	48	22.7
4	48	22.7
5	23	10.9
6	14	6.6
7	16	7.6
8	11	5.2
9	4	1.9
10	2	0.9
11	1	0.5

Frequency distributions of 4-H offices held by participants at either club, county or state levels are presented in Table 11. Percentages were calculated based on the total posttest respondents (N = 223). The percentages do not add up to 100% because participants were instructed to check as many as apply.

Table 11. Frequency distributions of offices held by 4-H campers (N = 223).

Offices Held	n	%
president	54	24.2
vice president	39	17.5
secretary	59	26.5
treasurer	33	14.8
reporter	34	15.2
recreation leader	16	7.2
historian	14	6.3
other	28	12.6

Of the 223 participants, the office most frequently held was secretary ($n = 59$) and the least frequently held tradition office was treasurer ($n = 33$). The offices of reporter, recreation leader, and historian were added to this table due to the fact that they were specified in blank following the choice of other offices not listed. Fifty four percent had held the president office.

Frequency distributions of participants in youth organization memberships other than 4-H are revealed in Table 12. Percentages were calculated based on the total posttest respondents ($N = 233$). The percentages do not add up to 100% because campers were instructed to check as many as apply. Of the 16 youth organizations listed, school sports held the highest membership ($n = 164$). BPOA, VICA and HERO tied with the least membership at $n = 3$.

Table 12. Frequency distributions of additional youth organization memberships of campers (N = 223).

Youth Organizations	n	%
Scouting	44	19.7
YMCA/YWCA	8	3.6
Boys Club/Girls Club	16	7.2
Camp Fire	22	9.9
Church Youth Groups	106	47.5
FFA	16	7.2
FHA	9	4.0
Livestock or Animal Clubs	50	22.4
Red Cross	8	3.6
School Sports	164	73.5
School Clubs	82	36.8
Junior Achievement	12	5.4
BPOA	3	1.3
VICA	3	1.3
HERO	3	1.3
Other	25	10.3

This distribution can be most likely explained by the age of the participants. At the ages of 11 and 12, young people do not have much opportunity to join organizations which focus on teens. This explains the high number of participants in scouting (44) as well as church youth groups and school sports. These younger participants would still be attending Sunday school and due to a lack of any other organizations to become involved in, would be active in school sports. Of the 25 respondents who specified youth organizations other than those

listed in the survey, results varied so much that frequency distributions were felt to be unnecessary.

Of the 222 campers who responded to an employment question, 29.3% (65) of the respondents indicated that they were employed, while the remaining 70.7% (157) were unemployed. Frequency distributions of ages with employment were then examined. The highest percentage of employed participants were age 11 (25.5%). There were no employed participants over age 17 with only 26.5% (15.4% and 10.8%) of the employed participants being 16 or 17 years of age.

Those who were employed were asked the number of hours per week that they worked. Frequency distributions of the hours worked per week are shown in Table 13. Sixty four of the 65 employed campers indicated the number of hours they worked per week.

Table 13. Frequency distributions of hours worked per week by employed participants (N=211).

Hours Worked per Week	n	%
1 to 10	30	46.9
11 to 20	13	20.3
over 20	21	32.8

Twenty-one (32.8%) of the employed campers were working more than 20 hours per week which does not correspond with child labor laws.

The data in Table 14 presents the frequency distributions of the percent of time employed campers spend working with people. Intervals of 25 % were used in the survey and are,

therefore, displayed in the results. Equal percentages (36.5%) of responders worked 25% or less and 76 to 100% with people. Only 27% (14.3% + 12.7%) of the respondents fell in the middle groups of 25 to 50% and 51 to 75%.

Table 14. Frequency distributions of time spent working with people by employed participants (N=211).

Working with People	n	%
25% or less	23	36.5
25 to 50%	9	14.3
51 to 75%	8	12.7
76 to 100%	23	36.5

Comparison of Pretest and Posttest Scores
on Life Skill Development

The data in Table 15 present the pretest and posttest score means for each of the five life skills. A matched pair *t*-test was computed for statistical difference between the two tests for the total score of the statements that measured each of the five life skills. The *t*-test results at the alpha level of 0.05 revealed that 4-H camp did make a difference in life skill development of Montana 4-H campers for all five of the life skill areas: self concept (*p*-value = .003); decision-making (*p*-value = .001); inquiring mind (*p*-value = .001); relating (*p*-value = .000); and concern for communities (*p*-value = .000).

In order to determine what contributed the most to the statistical significance on the matched-pair *t*-test comparisons of pretest and posttest scores, frequency distribution and

matched pair *t*-tests were computed on each of the statements that determine development of the five life skills.

Table 15. Matched Pair *t*-test comparisons of pretest and posttest scores (N = 223).

Life Skills	n	Mean	SD	<i>t</i> -value	<i>p</i> -value
Self Concept					
pretest	223	47.80	6.17	2.96	.003*
posttest	223	49.01	5.65		
Decision-making					
pretest	223	26.20	3.68	3.46	.001*
posttest	223	27.01	2.88		
Inquiring mind					
pretest	223	26.35	5.26	3.39	.001*
posttest	223	27.29	4.45		
Relating					
pretest	223	61.59	8.61	6.09	.000*
posttest	223	64.57	7.46		
Concern for communities					
pretest	223	39.07	7.22	3.55	.000*
posttest	223	40.64	5.58		

* Significant difference at alpha = .05 level.

Tables 16 through 20 present the frequency distributions and matched pair *t*-tests for each of the statements that measure the five life skill areas. Each of these tables present frequency distributions of 1 through 6 and missing data. For the purpose of the survey, the numbers 1

Table 16. Frequency distributions and matched pair *t*-tests for statements measuring life skill development of fostering a positive self concept (N =223).

Statements:		Frequency distributions of statement responses							Matched pair <i>t</i> -tests				
		1	2	3	4	5	6	missing	n	mean	SD	<i>t</i> -value	<i>p</i> -value
1.	I am capable of achieving goals I set for myself.												
	Pretest	0	1	7	32	116	66	1	223	5.05	.85	1.06	.291
	Posttest	0	0	2	39	112	70	0	223	5.12	.72		
2.	I can help my friends solve their problems by talking to them.												
	Pretest	2	8	11	51	82	68	1	223	4.81	1.13	.22	.824
	Posttest	2	5	13	44	104	55	0	223	4.83	1.00		
3.	I achieve new goals that I set for myself.												
	Pretest	3	5	12	59	101	39	4	223	4.59	1.17	1.85	.065
	Posttest	0	4	15	57	104	43	0	223	4.75	.91		
4.	I have patience with people and myself.												
	Pretest	5	8	13	74	74	48	1	223	4.55	1.17	.29	.769
	Posttest	0	6	20	70	88	36	3	223	4.52	1.09		
5.	I am always working to improve myself.												
	Pretest	0	4	15	51	95	57	1	223	4.82	1.00	1.18	.238
	Posttest	0	3	14	45	94	66	1	223	4.91	.99		
6.	I take pride in what I do.												
	Pretest	2	0	8	31	83	97	2	223	5.14	1.03	2.16	.032*
	Posttest	0	1	3	25	96	98	0	223	5.29	.75		
7.	I always work to the best of my ability												
	Pretest	1	7	8	44	102	59	2	223	4.84	1.08	1.25	.212
	Posttest	1	2	12	46	96	66	0	223	4.94	.93		
8.	I get along well with new people I meet.												
	Pretest	2	3	15	42	94	66	1	223	4.87	1.06	4.39	.000*
	Posttest	0	1	2	38	94	88	0	223	5.19	.78		
9.	I do not become emotional when things happen unexpectedly.												
	Pretest	11	14	25	62	65	45	1	223	4.29	1.38	.48	.632
	Posttest	6	14	32	46	83	40	2	223	4.35	1.33		
10	The career that I would like to have in the future would allow me to work with people.												
	Pretest	5	8	12	32	80	82	4	223	4.83	1.36	2.93	.004*
	Posttest	3	4	10	24	62	116	4	223	5.13	1.27		

* Significant difference at alpha = .05 level.

through 6 were labeled so that the respondents could choose the response which best represented their reaction to each statement. The numbers were labeled as follows: 1 = Strongly Disagree, 2 = Disagree, 3 = Mildly Disagree, 4 = Mildly Agree, 5 = Agree, and 6 = Strongly Agree. The entire survey instrument is located in Appendix C.

The data in Table 16 present the frequency distribution and matched pair t -tests for the ten statements whose purpose was to measure the development of the life skill of developing a positive self concept. Three of the ten statements were found to be statistically significant from pretest to posttest at the alpha level of 0.05: 6) I take pride in what I do (p -value = .032); 8) I get along well with new people I meet (p -value = .000); and 10) The career that I would like to have in the future would allow me to work with people (p -value = .004).

As shown in Table 16, frequencies in responses of 5 for statement number 6 increased by 13 with an overall shift from lower scores to higher scores. For statement number 8, frequencies of responses of 6 increased by 22 with an overall shift towards higher scores. Frequencies in responses of 6 increased by 34 for statement number 10. In all cases the standard deviation decreased. In all cases the standard deviation decreased from pretest to posttest scores.

The data in Table 17 presents the frequency distribution and matched pair t -tests for the six statements whose purpose was to measure the development of the life skill of decision-making and responsibility for choices. Five of the six statements were found to be statistically

significant from pretest to posttest at the alpha level of 0.05. For all the statements, the standard deviation decreased from pretest to posttest scores.

As shown in Table 17, frequencies in responses of 5 for statement number 1 increased by 10 as well as 4 and 6 both increased by 4. For statement number 2, frequencies of responses of 1 decreased by 8 with an increase of response 6 of 12 with an overall shift towards higher scores. Statement number 3 had increases in responses of 5 and 6 of 15 and 7 respectively. Statement number 4 was stated in a negative manner so a low score is desirable. Frequencies of response 5 and 6 dropped by 5 and 8 respectively while responses of 1 and 2 increased by 4 and 3. Frequencies in responses of 5 increased by 21 for statement number 6.

The data in Table 18 present the frequency distribution and matched pair *t*-tests for the six statements whose purpose was to measure the development of the life skill of developing an inquiring mind. All six of the statements were found to be statistically significant from pretest to posttest at the alpha level of 0.05: 1) I do not like to think about confusing matters (*p*-value = .001); 2) I like to do things that teach me about the world and its people (*p*-value = .004); 3) I am excited to learn about the world and its people (*p*-value = .000); 4) I am curious about the world and its people (*p*-value = .005); 5) For all cases, the standard deviation decreased from pretest to posttest scores.

Table 17. Frequency distributions and matched pair *t*-tests for statements measuring life skill development of learning decision-making and responsibility for choices (N =223).

Statements:	Frequency distributions of statement responses							Matched pair <i>t</i> -tests				
	1	2	3	4	5	6	missing	n	mean	SD	<i>t</i> -value	<i>p</i> -value
1. My input in solving group problems is helpful to the group.												
Pretest	4	6	15	58	103	35	2	223	4.57	1.12		
Posttest	0	3	6	62	113	39	0	223	4.80	.80	3.19	.002*
2. I budget my time well.												
Pretest	10	16	28	69	83	16	1	223	4.09	1.24		
Posttest	2	13	27	75	77	28	1	223	4.31	1.12	2.50	.013*
3. I easily solve problems.												
Pretest	3	8	26	89	74	20	3	223	4.23	1.11		
Posttest	2	4	14	76	99	27	1	223	4.54	.96	3.65	.000*
4. I usually solve problems in the same way.**												
Pretest	12	49	82	44	18	16	2	223	3.72	1.29		
Posttest	16	58	78	48	13	8	2	223	3.93	1.21	2.31	.022*
5. I am responsible for my actions.												
Pretest	2	2	6	21	71	119	2	223	5.28	1.05		
Posttest	1	1	6	22	77	116	0	223	5.34	.85	.76	.450
6. I am open minded about new ideas.												
Pretest	3	3	6	53	101	55	2	223	4.82	1.06		
Posttest	1	2	6	34	122	58	0	223	5.01	.82	2.65	.009*

* Significant difference at alpha = .05 level.

** Raw data scores were reversed for analysis of covariance.

Table 18. Frequency distributions and matched pair *t*-tests for statements measuring life skill development of developing an inquiring mind (N =223).

Statements:		Frequency distributions of statement responses							Matched pair <i>t</i> -tests				
		1	2	3	4	5	6	missing	n	mean	SD	<i>t</i> -value	<i>p</i> -value
1.	I do not like to think about confusing matters.**												
	Pretest	25	55	47	34	35	25	2	223	3.63	1.58	3.39	.001*
	Posttest	36	63	52	30	24	18	0	223	4.01	1.49		
2.	I like to do things that teach me about the world and its people.												
	Pretest	4	11	16	60	84	47	1	223	4.56	1.19	2.87	.004*
	Posttest	1	3	14	56	86	61	2	223	4.79	1.08		
3.	I am excited to learn about the world and its people.												
	Pretest	6	13	24	57	67	55	1	223	4.47	1.31	4.02	.000*
	Posttest	4	9	12	49	85	64	0	223	4.77	1.15		
4.	I am curious about the world and its people.												
	Pretest	8	11	15	49	76	63	1	223	4.61	1.33	2.86	.005*
	Posttest	3	6	11	49	81	72	1	223	4.85	1.14		
5.	I am curious about other cultural foods and customs.												
	Pretest	5	12	24	46	76	58	1	223	4.55	1.31	2.82	.005*
	Posttest	4	8	10	55	67	77	2	223	4.78	1.25		
6.	I ask questions about things I want to know more about.												
	Pretest	4	6	17	42	71	82	1	223	4.85	1.22	3.23	.001*
	Posttest	1	2	7	39	86	88	0	223	5.11	.92		

* Significant difference at alpha = .05 level.

** Raw data scores were reversed for analysis of covariance.

As shown in Table 18, statement number 1 was stated in a negative manner so a low score is desirable. Frequencies of response 4, 5, and 6 dropped while responses of 1, 2 and 3 increased by 11, 8 and 5 respectively. Frequencies in responses of 6 for statement number 2 increased by 14 with an overall shift from lower scores to higher scores. For statement number 3, frequencies of responses of 5 increased by 18 with an overall shift towards higher scores. Frequencies in responses of 6 increased by 9 for statement number 4 with overall increases in scores. Statement number 5 also had an increased response of 6 (19). A response of 5 increased by 15 for statement 6.

The data in Table 19 present the frequency distribution and matched pair t -tests for the thirteen statements whose purpose was to measure the development of the life skill of relating to self and others. Ten of the thirteen statements were found to be statistically significant from pretest to posttest at the alpha level of 0.05. For each of the 13 statements in Table 19, the standard deviation decreased from pretest to posttest scores.

As shown in Table 19, frequencies in responses of 6 for statement number 2 increased by 19. For statement number 5, frequencies of responses of 6 increased by 25. Frequencies in responses of 5 increased by 20 for statement number 7. A response of 5 increased by 14 for statement 8. Statement 9 had increased responses of 5 and 6 with frequencies of 13 and 11 respectively. Frequencies in responses of 5 increased by 16 for statement 10. Statement 11 had an increased response of 6 with an increased frequency of 20. Frequencies of response 5 and 6 increased by 11 and 19 respectively for statement 13.

Table 19. Frequency distributions and matched pair *t*-tests for statements measuring life skill development of relating to self and others (N =223).

Statements:		Frequency distributions of statement responses							Matched pair <i>t</i> -tests				
		1	2	3	4	5	6	missing	n	mean	SD	<i>t</i> -value	<i>p</i> -value
1.	I respect other people's views and opinions.												
	Pretest	1	0	4	43	95	79	1	223	5.09	.89		
	Posttest	1	0	9	36	99	78	0	223	5.09	.86	.06	.948
2.	I have respect for authority.												
	Pretest	6	3	8	21	103	80	2	223	5.00	1.18		
	Posttest	1	1	9	27	85	99	1	223	5.21	.90	2.65	.009*
3.	I try to do what is best for the group, not just for a few people.												
	Pretest	1	2	13	36	94	76	1	223	5.00	1.00		
	Posttest	1	1	7	30	105	79	0	223	5.13	.85	1.84	.067
4.	I am a good communicator.												
	Pretest	6	6	10	65	83	51	2	223	4.61	1.21		
	Posttest	2	6	14	53	94	54	0	223	4.76	1.03	1.93	.054
5.	Given the opportunity, I welcome discussion with those who are different from me.												
	Pretest	2	3	12	49	91	63	3	223	4.81	1.14		
	Posttest	0	1	7	32	95	88	0	223	5.17	.82	5.04	.000*
6.	I explain ideas well to other people.												
	Pretest	7	9	25	81	76	24	1	223	4.25	1.16		
	Posttest	1	5	20	72	96	29	0	223	4.54	.94	3.95	.000*
7.	I let other people know my feelings about things.												
	Pretest	11	15	26	62	56	51	2	223	4.27	1.44		
	Posttest	7	11	21	58	75	50	1	223	4.48	1.29	2.30	.022*
8.	I listen to other people and understand what they are saying.												
	Pretest	1	3	11	61	106	40	1	223	4.73	.94		
	Posttest	1	1	6	51	120	44	0	223	4.88	.80	2.23	.027*
9.	I take other people's thoughts and feelings into consideration when solving a problem.												
	Pretest	1	3	16	50	96	56	1	223	4.80	1.02		
	Posttest	1	0	8	38	109	67	0	223	5.04	.83	3.40	.001*

* Significant difference at alpha = .05 level.

Table 19. Continued

Statements:	Frequency distributions of statement responses							Matched pair t-tests				
	1	2	3	4	5	6	missing	n	mean	SD	t-value	p-value
10. I express my feelings to others.												
Pretest	12	15	31	52	74	37	2	223	4.19	1.42	3.38	.001*
Posttest	8	6	20	62	90	37	0	223	4.48	1.17		
11. I get along with people who are younger than me.												
Pretest	2	5	14	39	81	79	3	223	4.88	1.21	3.83	.000*
Posttest	4	0	5	34	76	104	0	223	5.20	.98		
12. I get along with adults.												
Pretest	2	3	12	34	96	74	2	223	4.95	1.09	3.99	.000*
Posttest	0	2	5	22	100	94	0	223	5.25	.79		
13. I respect the feelings of people who are different from me.												
Pretest	2	0	9	43	92	74	3	223	4.96	1.08	4.77	.000*
Posttest	0	0	3	24	103	93	0	223	5.28	.71		

* Significant difference at $\alpha = .05$ level.

The data in Table 20 presents the frequency distribution and matched pair t -tests for the eight statements whose purpose was to measure the development of the life skill of acquiring a concern for communities--local and global. Five of the eight statements were found to be statistically significant from pretest to posttest at the alpha level of 0.05.

As shown in Table 20, frequencies in responses of 6 for statement 1 increased by 15 with an overall shift from lower scores to higher scores. For statement number 3, frequencies of responses of 4 and 6 increased by 12 and 15 respectively. Frequencies in responses of 5 and 6 increased by 10 and 26 respectively for statement number 4. Frequencies in responses of 6 for statement 5 increased by 21. For statement number 8, frequencies of response 6 increased by 16 with an overall shift toward higher scores.

Rationale for use of Analysis of Covariance Statistic

According to Huck and Cormier (1996), ANCOVA, by providing adjusted mean scores of the dependent variable (posttest), provides the best estimate of how comparison groups would have performed if all participants had identical means on the covariate (pretest). The inferential statements are based on the adjusted means which are computed by the covariate (pretest) and dependent (posttest) variables. ANCOVA provides increased power and control of extraneous variables over the use of ANOVA as well as reduces the chance of committing a type II error (retaining a false null).

Table 20. Frequency distributions and matched pair *t*-tests for statements measuring life skill development of acquiring a concern for communities-- local and global (N =223).

Statements:		Frequency distributions of statement responses							Matched pair <i>t</i> -tests				
		1	2	3	4	5	6	missing	n	mean	SD	<i>t</i> -value	<i>p</i> -value
1.	I respect cultures different from my own.												
	Pretest	3	5	6	36	75	96	2	223	5.05	1.20		
	Posttest	0	2	4	26	79	111	1	223	5.30	.89	3.14	.002*
2.	I participate actively in my community.												
	Pretest	2	4	15	42	87	70	3	223	4.83	1.18		
	Posttest	1	3	7	44	100	67	1	223	4.96	.97	1.54	.125
3.	I volunteer my time to make my community a better place to live.												
	Pretest	4	12	32	54	80	37	4	223	4.31	1.32		
	Posttest	2	5	22	66	75	52	1	223	4.61	1.11	3.46	.001*
4.	I am just as important as any other person in making my community a better place to live.												
	Pretest	4	3	13	42	79	78	4	223	4.84	1.27		
	Posttest	1	5	5	17	89	104	2	223	5.22	1.04	4.53	.000*
5.	Everyone in my community is needed by others.												
	Pretest	2	4	10	42	76	86	3	223	4.95	1.18		
	Posttest	1	1	6	36	71	107	1	223	5.21	.97	2.98	.003*
6.	My rights are as important as the rights of my entire community.												
	Pretest	1	3	4	21	81	109	4	223	5.21	1.12		
	Posttest	0	3	0	25	74	120	1	223	5.36	.87	1.95	.053
7.	I speak out against what is wrong in my community.												
	Pretest	7	7	23	56	76	50	4	223	4.46	1.36		
	Posttest	5	10	32	65	69	41	1	223	4.36	1.23	1.13	.259
8.	I believe that people from other races are capable of being as successful as me.												
	Pretest	0	2	3	17	57	140	4	223	5.41	1.06		
	Posttest	0	1	2	6	57	156	1	223	5.62	.73	3.10	.002*

* Significant difference at alpha = .05 level.

Comparison of Single and Multiple County Camps on Life Skill Development

The data in Table 21 reveal the respondents posttest scores as compared to attendance of single or multiple county camps. An ANCOVA was conducted to determine if there was significant variance between the groups based on adjusted posttest scores. Table 21 is the result of the analysis of covariance at the alpha level of 0.05. Attendance of single versus multiple county camps did not have a statistically significant effect on development for any of the five life skill areas as evidenced by p-values ranging from .210 to .873.

Comparison of Age Groups on Life Skill Development

The data in Table 22 reveals the respondents posttest scores as compared to age of the respondents. In this analysis, frequency distributions in ages determined the selection of groups. The following respondents were grouped together for the purpose of this analysis: 1 = age 11 (34.5%), 2 = age 12 (20.2%), 3 = ages 13 and 14 (12.1% + 8.1%), 4 = ages 15, 16, 17, 18 and 19 (11.2% + 9.9% + 3.6% + .4%). Natural similarities in ages could not be used for grouping due to over 50% of the respondents being ages 11 and 12 which would have created misleading results. An ANCOVA was conducted to determine if there were significant differences between the age groups based on the adjusted posttest scores. Table 22 is the result of the analysis of covariance at the alpha level of 0.05. Age groups of the

participants proved to have a significant effect on development of the life skill of relating to self and others.

Table 21. Analysis of Covariance for posttest with pretest for comparison of single and multiple county camps (N = 223).

Source	SS	df	MS	F	p-value
Self Concept					
pretest	1529.89	1	1529.89	60.57	
between	.65	1	.65	.03	.873
within	5556.42	220	25.26		
Decision-making					
pretest	376.70	1	376.70	56.46	
between	2.32	1	2.32	.35	.556
within	1467.95	220	6.67		
Inquiring mind					
pretest	1819.34	1	1819.34	155.67	
between	11.51	1	11.51	.99	.322
within	2571.21	220	11.69		
Relating					
pretest	4379.47	1	4379.47	121.93	
between	56.67	1	56.67	1.58	.210
within	7866.34	219	35.92		
Concern for communities					
pretest	1675.34	1	1675.34	70.60	
between	7.71	1	7.71	.33	.569
within	5220.53	220	23.73		

Alpha level = .05

Table 22. Analysis of Covariance for posttest with pretest for comparison of age groups (N = 223).

Source	SS	df	MS	F	p-value
Self Concept					
pretest	1529.89	1	1529.89		
between	177.38	3	59.13	2.34	.069
within	5379.69	218	24.68		
Decision-making					
pretest	376.70	1	376.70		
between	47.09	3	15.70	2.40	.068
within	1423.17	218	6.53		
Inquiring mind					
pretest	1819.34	1	1819.34		
between	64.16	3	21.39	1.85	.139
within	2518.55	218	11.55		
Relating					
pretest	4379.47	1	4379.47		
between	413.60	3	137.87	3.98	.009*
within	7509.42	217	34.61		
Concern for communities					
pretest	1675.34	1	1675.34		
between	151.07	3	50.36	2.16	.093
within	5077.17	218	23.29		

* Significant difference at alpha = .05 level.

The ANCOVA statistic computed a grand mean as well as adjusted means for each group which is not revealed in Table 22. For those who were 12 years old, the adjusted posttest

was highest (66.48). Those respondents who were 13 or 14 years old had the lowest adjusted posttest score of 62.25. The 11 year olds and those who were 15 to 19 years of age had adjusted posttest scores (64.95 and 64.34 respectively) that fell within this range.

For the remaining life skills of self concept (p -value = .069), decision-making (p -value = .068), inquiring mind (p -value = .139) and concern for communities (p -value = .093), age groups proved to have no statistically significant effect on life skill development.

Comparison of Gender on Life Skill Development

The data in Table 23 reveals the respondents posttest scores as compared to gender of the campers. An ANCOVA was conducted to determine if there was significant difference between the groups based on adjusted posttest scores of the five life skills. Table 23 is the result of the analysis of covariance at the alpha level of 0.05. Gender of the participants proved to have a statistically significant effect on developing an inquiring mind (p -value = .008) and acquiring a concern for communities (p -value = .033). There were no statistically significant differences on life skill development for the life skills of self concept (p -value = .111), decision-making (p -value = .081), and relating (p -value = .124).

The ANCOVA statistic computed a grand mean as well as adjusted means for each group which is not revealed in Table 23. In explaining the statistical significance of gender on developing an inquiring mind, females had an adjusted posttest mean score of 27.75 which was higher than the males whose adjusted posttest score was 26.44. Gender's statistically

significant effect on developing a concern for communities also resulted in females (41.12) having adjusted posttest score that was higher than males (39.58).

Table 23. Analysis of Covariance for posttest with pretest for comparison of gender of participants (N = 223).

Source	SS	df	MS	F	p-value
Self Concept					
pretest	1516.08	1	1516.08	60.34	
between	64.44	1	64.44	2.56	.111
within	5452.44	217	25.13		
Decision-making					
pretest	361.63	1	361.63		
between	20.26	1	20.26	3.07	.081
within	1430.05	217	6.59		
Inquiring mind					
pretest	1828.89	1	1828.89		
between	79.41	1	79.41	7.18	.008*
within	2399.75	217	11.06		
Relating					
pretest	4048.02	1	4048.02		
between	85.03	1	85.03	2.38	.124
within	7710.25	216	35.70		
Concern for communities					
pretest	1609.01	1	1609.01		
between	107.43	1	107.43	4.61	.033*
within	5057.91	217	23.31		

* Significant difference at alpha = .05 level.

Comparison of Location of Campers' Homes

The data in Table 24 reveals the respondents posttest scores as compared to location of home of the campers. The location of home of the campers was divided into three sections:

1) on a farm or ranch; 2) rural, not on a farm or ranch; and 3) in town.

Table 24. Analysis of Covariance for posttest with pretest for comparison of location of the participants' homes (N = 221).

Source	SS	df	MS	F	P-value
Self Concept					
pretest	1572.87	1	1572.87		
between	4.70	2	2.35	.09	.911
within	5468.36	217	25.20		
Decision-making					
pretest	378.03	1	378.03		
between	20.84	2	10.42	1.57	.211
within	1443.13	217	6.65		
Inquiring mind					
pretest	1655.58	1	1655.58		
between	96.18	2	48.09	4.28	.015*
within	2440.79	217	11.25		
Relating					
pretest	4367.50	1	4367.50		
between	13.48	2	6.74	.19	.832
within	7888.38	216	36.52		
Concern for communities					
pretest	1706.10	1	1706.10		
between	22.64	2	11.32	.48	.620
within	5125.13	217	23.62		

* Significant difference at alpha = .05 level.

An ANCOVA was conducted to determine if there was significant difference between the groups based on adjusted posttest scores of the five life skills. Table 24 is the result of the analysis of covariance at the alpha level of 0.05. Location of the participants home proved to have a statistically significant effect on developing an inquiring mind (p -value = .015) but it did not have a statistically significant effect on the remaining life skills.

The ANCOVA statistic computed a grand mean as well as adjusted means for each group which is not revealed in Table 24. In explaining the statistical significance that location of participants' homes had on developing an inquiring mind, participants who lived in a rural area but not on a farm or ranch, had the highest adjusted posttest score of 27.66 and would have the most inquiring minds. Those who lived on a farm or ranch scored just below participants who lived in a rural area but not on a farm or ranch, with an adjusted posttest score of 27.62. Conversely, participants who lived in town scored the lowest (25.90).

Comparison of Camp Role on Life Skill Development

The data in Table 25 presents the respondents posttest scores as compared to camp role of the respondents. In this analysis, frequency distributions in camp role determined the selection of groups. The respondents were grouped together as follows for the purpose of this analysis: 1) 4-H campers and non 4-H campers were grouped together because they did not imply leadership roles and non 4-H campers only comprised of 1.3% of the respondents so they could not be analyzed separately, and 2) Camp counselors,

junior leaders and camp planners were grouped together due to their leadership roles in the camp setting. An ANCOVA was conducted to determine if there were significant differences between the camp roles based on the adjusted posttest scores. Table 25 is the result of the analysis of covariance at the alpha level of 0.05. Camp role of the participants did not have a statistically significant effect on any of the five life skill areas as evidenced by p-values of .187 to .812.

Table 25. Analysis of Covariance for posttest with pretest for comparison of camp role of the participants (N = 211).

Source	SS	df	MS	F	p-value
Self Concept					
pretest	1511.42	1	1511.42		
between	8.60	1	8.60	.33	.565
within	5378.18	208	25.86		
Decision-making					
pretest	380.55	1	380.55		
between	11.79	1	11.79	1.75	.187
within	1399.67	208	6.73		
Inquiring mind					
pretest	1735.94	1	1735.94		
between	.69	1	.69	.06	.812
within	2543.16	208	12.23		
Relating					
pretest	4198.86	1	4198.86		
between	39.72	1	39.72	1.07	.301
within	7656.94	207	36.99		
Concern for communities					
pretest	1660.44	1	1660.44		
between	22.70	1	22.70	.94	.333
within	5022.03	208	24.14		

Alpha level = .05

Comparison of Number of Camps Attended on Life Skill Development

The data in Table 26 reveals the respondents posttest scores as compared to the number of camps the participants had attended. In this analysis, frequency distributions in the number of camps attended determined the selection of groups. The following respondents were grouped together for the purpose of this analysis: 1) = 1 camp, 2) = 2 camps, 3) = 3 and 4 camps, and 4) = 5 or more camps. An ANCOVA was conducted to determine if there were significant differences between the number of camps attended based on the adjusted posttest scores.

Table 26 is the result of the analysis of covariance at the alpha level of 0.05. The number of camps the participants attended proved to have a statistically significant effect on development of the life skills of developing a positive self concept (p -value = .001) and relating to self and others (p -value = .017). There was no significant difference on the remaining three life skills.

The ANCOVA statistic computed a grand mean as well as adjusted means for each group which is not revealed in Table 26. In explaining the statistically significant effect the number of camps attended by participants had on developing self concept, those who attended two camps had the highest adjusted posttest score of 50.19. Conversely, for those participants who were attending camp for the first time, their adjusted posttest score was the lowest at

Table 26. Analysis of Covariance for posttest with pretest for comparison of number of camps attended by participants (N = 207).

Source	SS	df	MS	F	p-value
Self Concept					
pretest	1590.31	1	1590.31		
between	403.58	3	134.53	6.03	.001*
within	4510.52	202	22.33		
Decision-making					
pretest	357.61	1	357.61		
between	47.53	3	15.84	2.46	.064
within	1299.74	202	6.43		
Inquiring mind					
pretest	1819.95	1	1819.95		
between	44.96	3	14.99	1.34	.263
within	2260.91	202	11.19		
Relating					
pretest	3938.66	1	3938.66		
between	365.80	3	121.93	3.47	.017*
within	7072.25	201	35.19		
Concern for communities					
pretest	1533.29	1	1533.29		
between	136.13	3	45.38	1.97	.120
within	4657.80	202	23.06		

* Significant difference at alpha = .05 level.

46.50. Those who attended 3 to 4 camps and 5 or more camps fell within this range with adjusted posttest scores of 49.13 and 49.98 respectively.

Statistical significance on the life skill of relating to self and others follows this same pattern with those who attended two camps having the highest adjusted posttest score of 65.87. First-time campers had the lowest score of 62.20. Those who attended 3 to 4 camps and 5 or more camps fell within this range with scores of 64.58 and 65.48 respectively.

Comparison of Age Participants Joined 4-H on Life Skill Development

The data in Table 27 reveals the respondents posttest scores as compared to age respondents joined 4-H. In this analysis, frequency distributions in the age participants joined 4-H determined the selection of groups. The following respondents were grouped together for the purpose of this analysis: 1) ages 5 to 8, 2) age 9, and 3) ages 10 and up. Natural similarities in ages could not be used for grouping in order to prevent misleading results. This was due to the fact that over 70% the respondents ages when they joined 4-H were 9 years old and under. Rather, ages were grouped together by percentage of representation of frequencies.

An ANCOVA was conducted to determine if there were significant differences between the age participants joined 4-H based on the adjusted posttest scores. Table 27 is the result of the analysis of covariance at the alpha level of 0.05. Age groups of the participants proved to have a statistically significant effect on the development of the life skill of developing a positive self concept (p -value = .035) and acquiring a concern for communities (p -value =

.002). Age groups of the participants had no statistically significant effect on the three remaining life skills.

Table 27. Analysis of Covariance for posttest with pretest for comparison of the age participants joined 4-H (N = 213).

Source	SS	df	MS	F	p-value
Self Concept					
pretest	1624.00	1	1624.00		
between	158.49	2	79.25	3.41	.035*
within	4832.30	208	23.23		
Decision-making					
pretest	347.67	1	347.67		
between	27.96	2	13.98	2.13	.121
within	1364.09	208	6.56		
Inquiring mind					
pretest	1672.22	1	1672.22		
between	68.28	2	34.14	2.97	.053
within	2389.17	208	11.49		
Relating					
pretest	4331.36	1	4331.36		
between	122.66	2	61.33	1.94	.146
within	6532.65	207	31.56		
Concern for communities					
pretest	1846.65	1	1846.65		
between	280.21	2	140.11	6.55	.002*
within	4448.21	208	21.39		

* Significant difference at alpha = .05 level.

The ANCOVA statistic computed a grand mean as well as adjusted means for each group which is not revealed in Table 27. In explaining the statistically significant effect the age participants joined 4-H had on developing a positive self concept, those who joined 4-H at age 9 had the highest adjusted posttest score of 50.10. Participants who joined 4-H at age 10 or older had the lowest score (47.89). Those who joined 4-H between ages 5 and 8 fell within this range with an adjusted posttest score of 49.02.

The statistically significant effect the age participants joined 4-H had on acquiring a concern for communities followed this same pattern. Participants who joined 4-H at age 9 had the highest adjusted posttest score (41.71), those who joined at age 10 or older had the lowest score (38.87), and participants who joined between ages 5 and 8 had a score in the middle (41.11).

Comparison of Participants' Years in 4-H on Life Skill Development

The data in Table 28 reveals the respondents posttest scores as compared to respondents' years in 4-H. In this analysis, frequency distributions in the participants' years in 4-H determined the selection of groups. The following respondents were grouped together for the purpose of this analysis: 1) 1 to 2 years, 2) 3 years, 3) 4 years and 4) 5 years or more.

An ANCOVA was conducted to determine if there were significant differences between the participants' years in 4-H based on the adjusted posttest scores. Table 28 is the result of

the analysis of covariance at the alpha level of 0.05. Participants' number of years in 4-H had no statistically significant effect on the development of any of the five life skills as revealed by p-values of .344 to .879.

Table 28. Analysis of Covariance for posttest with pretest for comparison of the number of years participants were in 4-H (N = 211).

Source	SS	df	MS	F	p-value
Self Concept					
pretest	1622.91	1	1622.91		
between	79.64	3	26.55	1.11	.345
within	4911.09	206	23.84		
Decision-making					
pretest	343.00	1	343.00		
between	22.18	3	7.39	1.12	.344
within	1364.86	206	6.63		
Inquiring mind					
pretest	1678.31	1	1678.31		
between	19.34	3	6.45	.55	.651
within	2428.77	206	11.79		
Relating					
pretest	4325.36	1	4325.36		
between	47.51	3	15.84	.49	.689
within	6606.25	205	32.23		
Concern for communities					
pretest	1846.46	1	1846.46		
between	15.41	3	5.14	.23	.879
within	4712.72	206	22.88		

Alpha level = .05

Comparison of Employment on Life Skill Development

The data in Table 29 presents the respondents posttest scores as compared to employment of the respondents. Respondents were grouped as either 1) employed or 2) unemployed. An ANCOVA was conducted to determine if there were significant differences between the groups based on the adjusted posttest scores.

Table 29. Analysis of Covariance for posttest with pretest for comparison employment of the participants (N = 222).

Source	SS	df	MS	F	p-value
Self Concept					
pretest	1533.25	1	1533.25		
between	9.80	1	9.80	.39	.534
within	5534.79	219	25.27		
Decision-making					
pretest	377.35	1	377.35		
between	.03	1	.03	.00	.949
within	1468.55	219	6.71		
Inquiring mind					
pretest	1820.23	1	1820.23		
between	.01	1	.01	.00	.972
within	2581.73	219	11.79		
Relating					
pretest	4384.97	1	4384.97		
between	166.17	1	166.17	4.68	.032*
within	7748.88	218	35.55		
Concern for communities					
pretest	1682.52	1	1682.52		
between	3.48	1	3.48	.15	.703
within	5214.89	219	23.81		

* Significant difference at alpha = .05 level.

Table 29 is the result of the analysis of covariance at the alpha level of 0.05. Employment of the participants proved to have a statistically significant effect on the development of the life skill of relating to self and others (p -value = .032) but had no significant effect on the remaining four life skills.

The ANCOVA statistic computed a grand mean as well as adjusted means for each group which is not revealed in Table 28. In explaining the statistically significant effect employment had on developing the life skills of relating to self and others, unemployed participants scored the higher adjusted posttest score of 65.14. Employed participants had a lower score of 63.23.

Comparison of Number of Hours Worked per Week on Life Skill Development

The data in Table 30 reveals the employed respondents posttest scores as compared to the number of hours worked per week by the participants. The groups were divided into three intervals: 1) 1 to 10 hours, 2) 11 to 20 hours, 3) over 20 hours. An ANCOVA was conducted to determine if there were significant differences between the groups based on the adjusted posttest scores.

Table 30 is the result of the analysis of covariance at the alpha level of 0.05. The number of hours worked per week by participants proved to have no statistically significant effect on life skill development for any of the five life skill areas.

Table 30. Analysis of Covariance for posttest with pretest for comparison of number of hours worked per week by employed participants (N = 64).

Source	SS	df	MS	F	p-value
Self Concept					
pretest	686.49	1	686.49		
between	17.72	2	8.86	.42	.661
within	1273.79	60	21.23		
Decision-making					
pretest	177.28	1	177.28		
between	.58	2	.29	.06	.947
within	315.88	60	5.27		
Inquiring mind					
pretest	834.20	1	834.20		
between	15.61	2	7.81	.45	.643
within	1052.19	60	17.54		
Relating					
pretest	2472.40	1	2472.40		
between	87.80	2	43.90	1.26	.291
within	2091.55	60	34.86		
Concern for communities					
pretest	1068.51	1	1068.51		
between	22.13	2	11.06	.80	.452
within	825.97	60	13.77		

Alpha level = .05

Comparison of Time Spent Working with People on Life Skill Development

The data in Table 31 reveal the employed respondents posttest scores as compared to the percent of time they spent working with people. The groups are divided into three intervals:

1) less than 25% of the time, 2) 25% to 75% of the time, and 3) over 75% of the time.

Analysis of Covariance for posttest with pretest for comparison of percent of
Table 31. time spent working with people by employed participants (N = 64).

Source	SS	df	MS	F	p-value
Self Concept					
pretest	654.43	1	654.43		
between	35.74	2	17.87	.86	.428
within	1224.91	59	20.76		
Decision-making					
pretest	158.00	1	158.00		
between	.50	2	.25	.05	.953
within	304.92	59	5.17		
Inquiring mind					
pretest	975.30	1	875.30		
between	84.94	2	42.47	2.73	.074
within	919.48	59	15.58		
Relating					
pretest	1935.77	1	1935.77		
between	135.19	2	67.60	1.94	.152
within	2051.90	59	34.78		
Concern for communities					
pretest	945.43	1	945.43		
between	2.57	2	1.29	.09	.917
within	878.86	59	14.90		

Alpha Level = .05

An ANCOVA was conducted to determine if there was significant differences between the groups based on the adjusted posttest scores. Table 31 is the result of the analysis of covariance at the alpha level of 0.05. The percent of time spent working with people by participants proved to have no statistically significant effect on life skill development for any of the five life skill areas as evidenced by p-values ranging from .074 to .953.

CHAPTER 5

CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

The purpose of this study was to determine whether or not 1996 Montana single and multiple county 4-H campers were developing Montana 4-H life skills by attending 4-H camps. Research questions included: (1) What changes in skill development occur as a result of participation in 4-H camps? (2) To what extent do patterns of life skill development vary between single and multiple county camps? and (3) How does demographic information influence life skill development?

To fulfill the objectives of this study, Montana 4-H campers were administered pretest and delayed posttest surveys. The sections in this chapter include (1) conclusions, (2) implications and (3) recommendations. Generalizations about the result of this research is limited to the population of the study.

Conclusions

Based on the objectives and quantitative analysis of the data, the following conclusions were drawn:

- (1) Montana 4-H camps assist in the development of the life skill of fostering positive self concept which is enhanced by attendance at Montana 4-H

- camps in either a single or multiple county camp.
- (2) Montana 4-H camps assist in the development of the life skill of learning decision-making and responsibility for choices which is enhanced by attendance at Montana 4-H camps in either a single or multiple county camp.
 - (3) Montana 4-H camps assist in the development of the life skill of developing an inquiring mind which is enhanced by attendance at Montana 4-H camps in either a single or multiple county camp.
 - (4) Montana 4-H camps assist in the development of the life skill relating to self and others which is enhanced by attendance at Montana 4-H camps in either a single or multiple county camp.
 - (5) Montana 4-H camps assist in the development of the life skill acquiring a concern for communities -- local and global which is enhanced by attendance at Montana 4-H camps in either a single or multiple county camp.
 - (6) Montana 4-H campers' participation in a single county camp or multiple county camp equally influences life skill development.
 - (7) Age, gender, employment and number of camps attended proved to have a significant effect on four of the five life skill areas from pretest to posttest.

The life skill of fostering a positive self concept varied in development with the number of camps attended and the age the participants joined 4-H. The life skill of developing an inquiring mind varied in development with the gender of the participants as well as the location of the participants' homes. The life skill of relating to self and others varied in development with the age of the participants, the number of camps attended, and employment of the participants. The life skill of acquiring a concern for communities--local and global varied in development with the gender of the participants and the age the participants joined 4-H.

Implications

The data suggests that youth, for various reasons, appear to be seeking employment at a very young age. It is uncertain if these individuals are actually working for a wage or if they did not understand the term employment.

Recommendations

Based on the quantitative analysis of the data and the conclusions of the study, the following recommendations are made:

- (1) The Montana State 4-H Program should address the needs of teen 4-H attending camps. This recommendation is based on the low level of participation by teens in this study.
- (2) The Montana Extension Service should focus on activities that would develop those life skills which did not improve significantly as a result of these camps.
- (3) The Montana Extension Service needs to develop a tool to measure individual camps so that they can determine which camps are more effective in developing life skills. Activities used in camps that are more successful in developing life skills can then be shared with less successful camps and new camping programs to maximize life skill development.

Recommendations for Further Study

Four-H camps are an effective tool for changing life skills. In order to further improve camps, consideration should be given to the following:

- (1) The study needs to be repeated with a larger number of camps included or a random sampling of all camp participants.
- (2) While the questionnaire was properly pilot tested, reviewed by a panel of experts, and had an acceptable reliability, it should be reviewed for terms that appeared to be misunderstood by some participants.

- (3) In an effort to insure proper administration of the instrument, future researchers should not depend on camp directors to administer the survey instrument. Confusion can occur because of different interpretation of instructions by camp directors and camp directors are extremely busy people at the start of camps.
- (4) In repeating the study, extreme effort must be made to eliminate the threats of maturity and self selection into the population.

REFERENCES

- Astroth, K. A. (1996). Welcome to the Club: Education where the Bell Never Rings. Unpublished doctoral dissertation. Bozeman, MT: Montana State University
- Boyd, B. L. (1991). Analysis of 4-H Participation and Leadership Life Skill Development in Texas 4-H Club Members. Unpublished doctoral dissertation. College Station: Texas A & M University.
- Cantrell, J., Heinsohn, A. L. & Doeblen, M. K. (1989). Is it worth the costs? Going beyond the local 4-H club. Journal of Extension, 27, 16-18.
- Chenery, M. F. (1991). I Am Somebody: The Messages and Methods of Organized Camping for Youth Development. Durham, NC: Author.
- Collins, O. P. (1984). Life Skills Development through 4-H: A Survey of Adolescent Attitudes. Unpublished master's thesis, Lincoln, NE: University of Nebraska
- Cranford, M. L. (1974). 4-H Recreation and its teaching potential. Journal of Extension, vol. 11; 2.
- Diem, K. G. (1988). Determining The Degree of Success of 4-H Summer Camp Promotion and Programming. Unpublished manuscript, Rutgers Cooperative Extension of Somerset County, Bridgewater, NJ.
- Hamburg, B. A. (1990). Life Skills Training: Preventative interventions for young adolescents. Report of the Life Skills Training Working Group. Washington, DC: Carnegie Council on Adolescent Development.
- Heinsohn, A. & Cantrell J. (1986). Pennsylvania 4-H Impact Study: An Evaluation of Teens' Life Skill Development. University Park, PA: Pennsylvania State University.
- Huck, S. & Cormier, W. (1996). Reading Statistics and Research, 2nd ed. New York: Harper Collins College Publishers.
- Ladewig, H. & Thomas, J. (1987). Does 4-H Make A Difference? The 4-H Alumni Study. College Station, TX: Texas A&M University System.

Levings, J. (1989). Iowa 4-H Survey of Campers' Parents. Unpublished Manuscript, Ames, IA: Iowa State University.

Microsoft Corporation. (1994). Microsoft Excel, Version 5.0. Microsoft Corporation.

Montana State 4-H Staff. (1993). Montana 4-H Youth Development Program Summary. Montana 4-H Special Edition. Unpublished manuscript. Bozeman, MT: Montana State University

Rasmussen, W. D. (1989). Taking the University to the People: Seventy-five Years of Cooperative Extension. Ames, IA: Iowa State University Press.

Reck, F. (1951). The 4-H story: A History of 4-H Club Work. Ames, IA: The Iowa State College Press.

Rollins, T. (1993). Life Skills Accomplishment Record. Unpublished manuscript, University Park, PA: Pennsylvania State University,

Scriven, M. (1980), High Potential Consequences of the 4-H Program. Education and Urban Society, 13(1), 83-103.

SPSS Inc. (1995). SPSS-X for MS Windows Release 6.1. Chicago, IL: SPSS Inc.

Steele, S. M. & Rossing, B. How well are 4-H Programs Attaining Century III Objectives? University of Wisconsin - Extension, Division of Program and Staff Development, May, 1981.

Weatherford, D., & Weatherford, C. (1987). A Review of Theory and Research found in Selected Experiential, Lifeskill Development and 4-H Program Impacts Literature. Unpublished report. Raleigh, NC: North Carolina University.

APPENDICES

APPENDIX A

MONTANA COUNTY EXTENSION AGENT QUESTIONNAIRE DOCUMENTS

**State 4-H Office**

Taylor Hall
MSU • Bozeman
Bozeman, MT 59717-0358
Telephone (406) 994-3501
Fax (406) 994-5417

April 24, 1996

Dear County 4-H Agents,

Presently, I am a graduate student working on my master's thesis at Montana State University. My major is Agriculture Education-Extension with a focus on 4-H youth development.

My proposed thesis is entitled *Life Skill Development of Montana 4-H Campers*. The purpose of the thesis is to determine the effects of 4-H summer camps on the behaviors of 4-H campers in the development of life skills.

The survey instrument has been created so that 4-H camp members will respond to surveys. The results will be analyzed for behavioral changes. The methodology of this study is to collect pretest and delayed posttest data from 4-H campers. The data will then be analyzed using an Analysis of Variance to indicate behavioral change.

Please take a few minutes to fill out the enclosed questionnaire and return to Mike Cavey by May 15, 1996. A 100% return of this questionnaire is vital to this life skills study.

Your time is much appreciated. Thank you.

Sincerely,

A handwritten signature in cursive script that reads "Kelly J. Wingard".

Kelly J. Wingard, Graduate Student
Agriculture Education-Extension

A handwritten signature in cursive script that reads "Mike Cavey".

Dr. Mike Cavey
4-H Youth Development Specialist

Survey Instructions

You may recognize this survey from last year. I added a few questions so that I can better understand the breakdown of your summer 4-H camps.

Now that I have completed a pilot test and fine tuned the Montana 4-H camps Life skills Survey instrument, I can now explain in detail the assistance I would need from you, the extension agent.

1. Take 5 minutes to complete the Montana County Extension Agent Questionnaire enclosed in this packet and return to Mike Cavey by May 15, 1996.
2. Upon receiving the Montana County Extension Agent Questionnaire from you, my graduate committee (Mike Cavey, Van Shelhamer and Martin Frick) and myself will select the 4-H camps to be surveyed. If a camp that your county 4-H members attend is selected, you will receive a letter of notification from Mike Cavey and myself by May 31, 1996.
3. Upon selection of your camp for the survey, the extension agent who is the acting director of the camp will receive the following:
 - a. The appropriate number of surveys for the 4-H members attending the selected camp.
 - b. A one page instruction sheet for distributing the Montana 4-H Camps life Skills Survey.
 - c. A large prepaid postage envelope addressed to the Agricultural Education Department in which the Montana 4-H Camps life Skills Survey can be returned to me at the director's earliest convenience.
 - d. Four-H pencils; one for each 4-H camper that participates in the survey.
4. The Montana 4-H Camps Life Skills Survey will have a section for the 4-H camper to write their initials, birth date (used rather than name to insure 4-H member confidentiality) and address. This will enable me to send the participants of the survey their delayed posttest directly from the Agricultural Education office so that the extension agent will be freed of any further responsibilities in helping with this survey.

Once again, I would like to thank you for your time in completing the questionnaire, and I would very much appreciate your assistance in executing the Montana 4-H Camps Life Skills Survey this summer.

Montana County Extension Agent Questionnaire on the Organization of Montana 4-H Camps

Name: _____

What county or counties does your Extension Office serve? _____

What is the present number of 4-H members in your county? (If your office serves more than one county, list the numbers for each county separately) _____

What is the present number of summer camps located in Montana that your county 4-H members will attend during the summer of 1996? (Please include day camps where campers don't stay overnight) _____

Please complete the tables below:

Name of Camp	Location	Length(days)	Counties attending	Focus
A.				
B.				
C.				
D.				
E.				
F.				

79

(Table continued)	Ages Served (indicate the number of 4-H members attending from each age group)				Non-member Participation	Dates of Camp
Name of Camp	Under 10 years	11 to 13 years	14 to 16 years	Over 16 years		
A.						
B.						
C.						
D.						
E.						
F.						

What is the name of the 4-H extension agent that will be acting as the camp director for the 1996 summer 4-H camp?

A. _____ D. _____
 B. _____ E. _____
 C. _____ F. _____

Will you assist in determining the impact that 4-H camps have on life skills? _____

APPENDIX B

NOTIFICATION OF SELECTED MONTANA 4-H CAMPS DOCUMENTS

**State 4-H Office**

Taylor Hall
 MSU • Bozeman
 Bozeman, MT 59717-0358
 Telephone (406) 994-3501
 Fax (406) 994-5417

May 30, 1996

Dear County 4-H Agents,

I would like to take this opportunity to thank you for completing the Montana County Extension Agent Questionnaire on the Organization of Montana 4-H camps. Your information has been very helpful in the implementation of the 1996 Montana 4-H Camps Life Skills Survey.

I am writing you this letter to inform you that the following single and multi-county 4-H camps have been selected in which the Life Skills Survey will be administered to the 4-H campers. Please examine the information in which your county's campers will be attending. Please notify myself or Mike Cavey if you feel that this information is not accurate. I will be sending the appropriate number of surveys and 4-H pencils (according to the column entitled, No. campers ages 11 & up) to the camp directors so that they will receive them approximately one week prior to the beginning of camp.

Camp Directors should set aside approximately 20 minutes at the very beginning of camp for the 4-H campers to complete the survey. Your help is much appreciated. Thank you.

Sincerely,

Kelly Wingard, Graduate Student
 Agricultural Education - Extension
 126 Cheever Hall
 Montana State University
 Bozeman, MT 59715
 (406) 994-3201

Dr. Mike Cavey
 4-H Youth Development Specialist

Selected Single County Camps

Camp	Date	Director	County	Location	Length (days)	Focus	No. Campers ages 11 & up
Cascade County 4-H Camp	June 6-9	Sheryl Knowles	Cascade	Monarch Camp	4	Workshops and Activities	48
Valley County 4-H Camp	June 8-9	Debbie Donovan and Bill Louckner	Valley	Ft. Peck Boy Scout Camp	2	Wildlife and Fun	25
Cascade County 4-H Camp	June 10-13	Sheryl Knowles	Cascade	Monarch Camp	4	Workshops and Activities	48
Camp Sew-Wear	June 11-12	Debbie Donovan	Valley	Glasgow	2	clothing	15
Park County 4-H Camp	June 12-14	Marty Malone	Park	Luccock Park	4	Recreation	18
Kidz Daze	June 17-18	Steve Williams	Blaine	Chinook	2	Variety of Projects	35
Phillips County 4-H Camp	June 17-19	Kent Williams	Phillips	South of Havre	2	Fun and Youth Development	40
Junior Camp	June 18-20	Elaine Meier	Fergus- Petroleum	Camp Maiden	2	Team Work, Problem Solving and Group Activities	15
Silver Bow 4-H Camp	June 30 - July 2	4-H Council	Silver Bow	Georgetown Lake	3	Youth Development	40

Selected Multi-County Camps

Camp	Date	Director	Counties	Location	Length (days)	Focus	No. Campers ages 11 & up
Sewing Camp	June 11-14	Eileen Wilson	Flathead Lake Lincoln Mineral Missoula Ravalli Sanders	Loon Lake 4-H Camp	4	sewing/quilting skills	40
Camp Needmore	June 11-14 Counselors arrive June 10	Dave Bertelsen and Marko Manoukian	Custer Dawson Fallon-Carter Garfield McCone Powder River Prairie Rosebud-Treasure Wibaux	Ekalaka	4 Counselors - 5	Group Activities Life Skill and Entertainment Workshops Leadership development for counselors	90
Multi-County 4-H Camp	June 14-17	Jim Moore	Broadwater Chouteau Judith Basin Meagher Musselshell- Golden Valley Wheatland	Nychart	4	Fun, Education	50
Westmont	June 17-21	Jack Stivers	Flathead Lake Lincoln Mineral Missoula Ravalli Sanders	Loon Lake 4-H Camp	5	Junior Leadership and Teen Issues	50
Four County 4-H Camp	June 24-27	Raeann Pourroy	Glacier Liberty Podaca Toole	Bitterroot Lake Campground	4	Outdoor Education	60
Multi-County 4-H Camp	June 24-28	John Halpops	Flathead Lake Lincoln Mineral Missoula Sanders	Loon Lake 4-H Camp	5	Team building counselors - leadership skills	55

APPENDIX C
PRETEST SURVEY DOCUMENTS


State 4-H Office

Taylor Hall
 MSU • Bozeman
 Bozeman, MT 59717-0358
 Telephone (406) 994-3501
 Fax (406) 994-5417

May 31, 1996

Dear 4-H Camp Director,

(Selected Camp Name) 4-H Camp has been selected to participate in the 1996 Montana 4-H Camps Life Skills Survey. According to the Montana County Extension Agent Questionnaire, this camp will occur (Date) at (Location).

Enclosed you will find (Number of 4-H campers over 10 years old) surveys and find (Number of 4-H campers over 10 years old) 4-H pencils for the 4-H campers to complete the survey. It is crucial that the 4-H campers receive the survey at the very beginning of camp so that their perceptions can be obtained prior to learning. A posttest will be sent directly to the campers three weeks after the camp is over to determine behavioral change as a result of camp. All 4-H campers ages 11 and up should complete the survey including counselors and junior leaders. If counselors and junior leaders arrive earlier than the rest of the campers they should complete the survey as soon as they arrive at camp before any formal training.

If there are any extra surveys please send them back with the completed surveys. The 4-H pencils are for the 4-H campers to keep. If there are extra pencils please keep them. A pre-addressed postage paid envelope is enclosed so that the surveys can be returned to me as soon as possible with no expense to you. If the surveys can be mailed from camp please do so otherwise send them after camp is over.

Thank you very much for all of your time and assistance.

Sincerely,

A handwritten signature in cursive script that reads "Kelly Wingard".

Kelly Wingard, Graduate Student
 Agricultural Education - Extension

A handwritten signature in cursive script that reads "Mike Cavey".

Dr. Mike Cavey
 4-H Youth Development Specialist

**State 4-H Office**

Taylor Hall
MSU • Bozeman
Bozeman, MT 59717-0358
Telephone (406) 994-3501
Fax (406) 994-5417

May 31, 1996

Dear Montana 4-H Campers,

I am a graduate student at Montana State University, surveying Montana 4-H campers ages 11 to 19 to determine life skills development as a result of 4-H camp.

Only about 20 minutes will be needed to complete the survey. Your response to this survey is very critical and will be kept in strict confidence. Your responses will not be reported to your extension agent or 4-H leader. Section III of the survey has been created so that each camper can complete a second survey 3 weeks after camp.

I want to thank you in advance for your prompt, honest responses. When you are finished with the survey, immediately give it to a counselor or camp staff member so that the survey can be returned to me.

Thank you again for your valuable time and assistance.

Sincerely,

Kelly Wingard
Kelly Wingard
Graduate Student

Mike Cavey
Mike Cavey
4-H Youth Development Specialist

Montana 4-H Camps

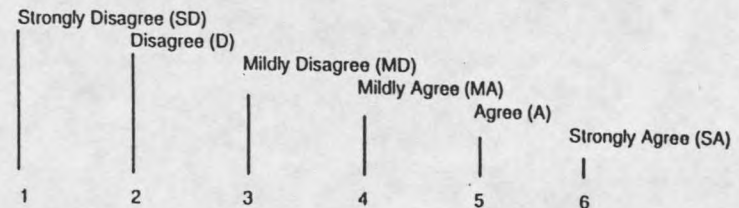


Life Skills Survey

Survey Purpose: The purpose of this survey is to determine the effect of selected 1996 Montana single and multiple county 4-H camps on the development of Montana 4-H life skills on 4-H campers.

Section I. For questions 1 through 42, read the statement and circle the corresponding number that best describes you.

Select the attitude that best describes you in the following statements.



Example Question:

EX	Statement:	SD	D	MD	MA	A	SA
1.	I am at ease when I speak in front of a group.	1	2	3	4	5	6

In this example, number 5 is circled, therefore I agree that I am at ease when I speak in front of a group.

I.	Statements:	SD	D	MD	MA	A	SA
1.	I am capable of achieving goals that I set for myself.	1	2	3	4	5	6
2.	My input in solving group problems is helpful to the group.	1	2	3	4	5	6
3.	I can help my friends solve their problems by talking to them.	1	2	3	4	5	6
4.	I budget my time well.	1	2	3	4	5	6
5.	I achieve new goals that I set for myself.	1	2	3	4	5	6
6.	I have patience with people and myself.	1	2	3	4	5	6
7.	I respect other peoples' views and opinions.	1	2	3	4	5	6
8.	I am always working to improve myself.	1	2	3	4	5	6
9.	I have respect for authority.	1	2	3	4	5	6
10.	I take pride in what I do.	1	2	3	4	5	6
11.	I always work to the best of my ability.	1	2	3	4	5	6
12.	I easily solve problems.	1	2	3	4	5	6
13.	I usually solve problems in the same way.	1	2	3	4	5	6
14.	I am responsible for my actions.	1	2	3	4	5	6
15.	I try to do what is best for the group, not just for a few people.	1	2	3	4	5	6

	Statements:	SD	D	MD	MA	A	SA
16.	I am open minded about new ideas.	1	2	3	4	5	6
17.	I do not like to think about confusing matters.	1	2	3	4	5	6
18.	I like to do things that teach me about the world and its people.	1	2	3	4	5	6
19.	I am excited to learn about the world and its people.	1	2	3	4	5	6
20.	I am curious about the world and its people.	1	2	3	4	5	6
21.	I am curious about other cultural foods and customs.	1	2	3	4	5	6
22.	I am a good communicator.	1	2	3	4	5	6
23.	Given the opportunity, I welcome discussion with those who are different from me.	1	2	3	4	5	6
24.	I explain ideas well to other people.	1	2	3	4	5	6
25.	I let other people know my feelings about things.	1	2	3	4	5	6
26.	I listen to other people and understand what they are saying.	1	2	3	4	5	6
27.	I take other peoples' thoughts and feelings into consideration when solving a problem.	1	2	3	4	5	6
28.	I get along well with new people I meet.	1	2	3	4	5	6
29.	I do not become emotional when things happen unexpectedly.	1	2	3	4	5	6
30.	I ask questions about things I want to know more about.	1	2	3	4	5	6

Statements:

SD D MD MA A SA

- | | | | | | | |
|---|---|---|---|---|---|---|
| 31. I express my feelings to others. | 1 | 2 | 3 | 4 | 5 | 6 |
| 32. I get along with people who are younger than me. | 1 | 2 | 3 | 4 | 5 | 6 |
| 33. I get along with adults. | 1 | 2 | 3 | 4 | 5 | 6 |
| 34. I respect the feelings of people who different from me. | 1 | 2 | 3 | 4 | 5 | 6 |
| 35. I respect cultures different from my own. | 1 | 2 | 3 | 4 | 5 | 6 |

For questions 36 through 41, a community is defined as a combined population of various kinds of individuals in a common location.

- | | | | | | | |
|---|---|---|---|---|---|---|
| 36. I participate actively in my community. | 1 | 2 | 3 | 4 | 5 | 6 |
| 37. I volunteer my time to make my community a better place to live. | 1 | 2 | 3 | 4 | 5 | 6 |
| 38. I am just as important as any other person in making my community a better place to live. | 1 | 2 | 3 | 4 | 5 | 6 |
| 39. Everyone in my community is needed by others. | 1 | 2 | 3 | 4 | 5 | 6 |
| 40. My rights are as important as the rights of my entire community. | 1 | 2 | 3 | 4 | 5 | 6 |
| 41. I speak out against what is wrong in my community. | 1 | 2 | 3 | 4 | 5 | 6 |
| 42. I believe that people from other races are capable of being as successful as me. | 1 | 2 | 3 | 4 | 5 | 6 |
| 43. The career that I would like to have in the future would allow me to work with people. | 1 | 2 | 3 | 4 | 5 | 6 |

Section II. For the following questions, please respond by either filling in the blank (as in question number 1.) or by placing an X next to the response that best describes you (as in question number 3.).

1. I am _____ years old.
2. I will be in _____ grade in school this fall.
 _____ 6th _____ 10th
 _____ 7th _____ 11th
 _____ 8th _____ 12th
 _____ 9th _____ Other (Please specify) _____
3. I am a _____.
 _____ male
 _____ female
4. I am _____.
 _____ American Indian/Alaska Native
 _____ Asian or Pacific Islander
 _____ Black, not of Hispanic origin
 _____ White, not of Hispanic origin
 _____ Hispanic
 _____ not sure of my race
5. I live _____.
 _____ on a farm or ranch.
 _____ in a rural area but not on a farm or ranch.
 _____ in town.
6. My role at 4-H camp is _____.
 _____ 4-H Camper _____ Camp Planner
 _____ Camp Counselor _____ Non 4-H Camper
 _____ Junior Leader
7. I have attended _____ camps including this camp. (Please be sure to include non-4-H camps such as scouting camp and church camp.)

If you are not in 4-H , skip questions 8 through 10.

8. I was _____ years old when I first joined 4-H.
9. I have been in 4-H for _____ years.

10. I have held the office of _____ at either the club, county or state level in 4-H. You may check more than one.
- _____ President
 - _____ Vice President
 - _____ Secretary
 - _____ Treasurer
 - _____ Other (Please Specify) _____

11. What youth organizations, other than 4-H, have you participated in? You may check more than one.

- _____ Scouting
- _____ YMCA/YWCA
- _____ Boys Club/Girls Club
- _____ Camp Fire
- _____ Church Youth Groups
- _____ FFA
- _____ FHA
- _____ Livestock or Animal Organizations
- _____ Red Cross
- _____ School Sports
- _____ School Clubs
- _____ Junior Achievement
- _____ BPOA
- _____ VICA
- _____ HERO
- _____ Other (Please Specify) _____

12. I am _____.
- _____ employed.
 - _____ unemployed.

Answer questions 13 and 14 only if you are employed.

13. I work approximately _____ hours a week.
- _____ 1 to 10
 - _____ 11 to 20
 - _____ more than 20
14. My present job allows me to work _____ of my time with people.
- _____ 25% or less
 - _____ 26% to 50 %
 - _____ 51% to 75%
 - _____ more than 75%

Section III. This section was created so that the researcher could collect data after the camp is over.

Please print your first, middle and last initials and your birth date on the first line. On the second line print your street, rural address or post office box. On the third line, please print the town and state you live in as well as your zip code.

Example:

K J W 2 - 7 - 82
126 Cheever Road
Bozeman, MT 59715

Please enter your information in the same manner on the lines provided below.

Thank You!!

APPENDIX D
POSTTEST SURVEY DOCUMENTS


State 4-H Office

Taylor Hall
 MSU • Bozeman
 Bozeman, MT 59717-0358
 Telephone (406) 994-3501
 Fax (406) 994-5417

July 1996

Dear Montana 4-H Campers,

You have already completed a survey similar to this at the beginning of a 4-H camp. The purpose of my graduate thesis is to determine life skills development as a result of 4-H camp. In order to determine the influence the camp had on lifeskills, it is necessary for you to complete this survey. Your quick response will help insure that I am able to complete my graduate program at Montana State University. Only about 20 minutes will be needed to complete the survey. Your responses will not be reported to your extension agent or 4-H leader.

I want to thank you in advance for your prompt, honest responses. When you are finished with the survey, please fold it in half and tape it so that the address is showing. By returning this survey within a week, you will be entered in a drawing for one of two \$25.00 cash prizes. These prizes will be issued on August 25, 1996. The code number appearing on the back of the survey is strictly for follow up purposes and prize drawings.

Thank you again for your valuable time and assistance.

Sincerely,

A handwritten signature in cursive script that reads "Kelly Wingard".

Kelly Wingard
 Graduate Student

A handwritten signature in cursive script that reads "Mike Cavey".

Mike Cavey
 4-H Youth Development Specialist

Montana 4-H Camps

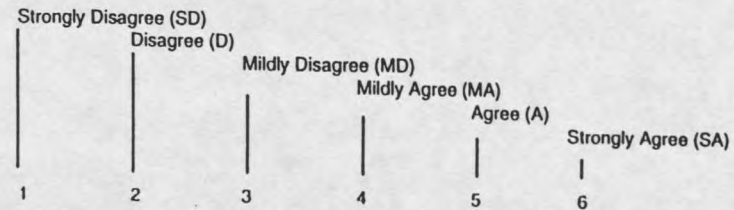


Life Skills Survey

Survey Purpose: The purpose of this survey is to determine the effect of selected 1996 Montana single and multiple county 4-H camps on the development of Montana 4-H life skills on 4-H campers.

Section I. For questions 1 through 42, read the statement and circle the corresponding number that best describes you.

Select the attitude that best describes you in the following statements.



93

Example Question:

EX	Statement:	SD	D	MD	MA	A	SA
1.	I am at ease when I speak in front of a group.	1	2	3	4	5	6

In this example, number 5 is circled, therefore I agree that I am at ease when I speak in front of a group.

I.	Statements:	SD	D	MD	MA	A	SA
1.	I am capable of achieving goals that I set for myself.	1	2	3	4	5	6
2.	My input in solving group problems is helpful to the group.	1	2	3	4	5	6
3.	I can help my friends solve their problems by talking to them.	1	2	3	4	5	6
4.	I budget my time well.	1	2	3	4	5	6
5.	I achieve new goals that I set for myself.	1	2	3	4	5	6
6.	I have patience with people and myself.	1	2	3	4	5	6
7.	I respect other peoples' views and opinions.	1	2	3	4	5	6
8.	I am always working to improve myself.	1	2	3	4	5	6
9.	I have respect for authority.	1	2	3	4	5	6
10.	I take pride in what I do.	1	2	3	4	5	6
11.	I always work to the best of my ability.	1	2	3	4	5	6
12.	I easily solve problems.	1	2	3	4	5	6
13.	I usually solve problems in the same way.	1	2	3	4	5	6
14.	I am responsible for my actions.	1	2	3	4	5	6
15.	I try to do what is best for the group, not just for a few people.	1	2	3	4	5	6

	Statements:	SD	D	MD	MA	A	SA
16.	I am open minded about new ideas.	1	2	3	4	5	6
17.	I do not like to think about confusing matters.	1	2	3	4	5	6
18.	I like to do things that teach me about the world and its people.	1	2	3	4	5	6
19.	I am excited to learn about the world and its people.	1	2	3	4	5	6
20.	I am curious about the world and its people.	1	2	3	4	5	6
21.	I am curious about other cultural foods and customs.	1	2	3	4	5	6
22.	I am a good communicator.	1	2	3	4	5	6
23.	Given the opportunity, I welcome discussion with those who are different from me.	1	2	3	4	5	6
24.	I explain ideas well to other people.	1	2	3	4	5	6
25.	I let other people know my feelings about things.	1	2	3	4	5	6
26.	I listen to other people and understand what they are saying.	1	2	3	4	5	6
27.	I take other peoples' thoughts and feelings into consideration when solving a problem.	1	2	3	4	5	6
28.	I get along well with new people I meet.	1	2	3	4	5	6
29.	I do not become emotional when things happen unexpectedly.	1	2	3	4	5	6
30.	I ask questions about things I want to know more about.	1	2	3	4	5	6

Statements:

SD D MD MA A SA

Additional Comments:

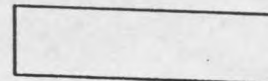
- | | | | | | | | |
|-----|---|---|---|---|---|---|---|
| 31. | I express my feelings to others. | 1 | 2 | 3 | 4 | 5 | 6 |
| 32. | I get along with people who are younger than me. | 1 | 2 | 3 | 4 | 5 | 6 |
| 33. | I get along with adults. | 1 | 2 | 3 | 4 | 5 | 6 |
| 34. | I respect the feelings of people who different from me. | 1 | 2 | 3 | 4 | 5 | 6 |
| 35. | I respect cultures different from my own. | 1 | 2 | 3 | 4 | 5 | 6 |

For questions 36 through 41, a community is defined as a combined population of various kinds of individuals in a common location.

- | | | | | | | | |
|-----|---|---|---|---|---|---|---|
| 36. | I participate actively in my community. | 1 | 2 | 3 | 4 | 5 | 6 |
| 37. | I volunteer my time to make my community a better place to live. | 1 | 2 | 3 | 4 | 5 | 6 |
| 38. | I am just as important as any other person in making my community a better place to live. | 1 | 2 | 3 | 4 | 5 | 6 |
| 39. | Everyone in my community is needed by others. | 1 | 2 | 3 | 4 | 5 | 6 |
| 40. | My rights are as important as the rights of my entire community. | 1 | 2 | 3 | 4 | 5 | 6 |
| 41. | I speak out against what is wrong in my community. | 1 | 2 | 3 | 4 | 5 | 6 |
| 42. | I believe that people from other races are capable of being as successful as me. | 1 | 2 | 3 | 4 | 5 | 6 |
| 43. | The career that I would like to have in the future would allow me to work with people. | 1 | 2 | 3 | 4 | 5 | 6 |

Thank You!!

Identification Number



Fold



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 69 BOZEMAN, MT

POSTAGE WILL BE PAID BY ADDRESSEE

MONTANA STATE UNIVERSITY-BOZEMAN
DEPARTMENT OF Agriculture Education
BOZEMAN MT 59715-9947



96



APPENDIX E

FIRST FOLLOW-UP POSTCARD

Reminder

Dear Montana 4-H Camper,

A Montana 4-H Camp Life Skills Survey was sent to you approximately 10 days ago. Unfortunately I have not yet received your completed survey.

If you did not receive this survey or you have misplaced it, please call (406) 994-3201 and ask that a Montana 4-H Camp Life Skills Survey be sent to you. By sure to leave your first, middle and last initials, birthdate and your complete mailing address.

If you received the survey and have not completed it, please do so. Remember that responding to this survey now will enter you in a drawing for one of two cash prizes of \$25.00.

Please discard this notice if you have already returned your completed Montana 4-H Camp Life Skills Survey.

Thank you for your valuable time and assistance.

Sincerely,

Kelly F. Wingard

Kelly Wingard
Graduate Student

Sincerely,

Mike Cavey

Mike Cavey
4-H Youth Development Specialist

APPENDIX F
SECOND FOLLOW-UP POSTTEST DOCUMENTS

**State 4-H Office**

Taylor Hall
 MSU • Bozeman
 Bozeman, MT 59717-0358
 Telephone (406) 994-3501
 Fax (406) 994-5417

July 1996

Dear Montana 4-H Campers,

During this time of the year with fairs and harvesting, we find ourselves busier than we should be. Sometimes our best intentions fall by the wayside because of lack of time.

Approximately 3 weeks ago, you should have received a Montana 4-H Camp Life Skills Survey posttest. As of this date, we have not received your completed survey. In the event that you may have lost or misplaced it, we are sending another copy of the survey with this letter.

In order to determine the influence the camp had on lifeskills, it is necessary for you to complete this survey. Your quick response will help insure that I am able to complete my graduate program at Montana State University. Only about 20 minutes will be needed to complete the survey. Your responses will not be reported to your extension agent or 4-H leader.

I want to thank you in advance for your prompt, honest responses. When you are finished with the survey, please fold it in half and tape it so that the address is showing, no postage is necessary. By returning this survey within a week, you will be entered in a drawing for one of two \$25.00 cash prizes. These prizes will be issued on August 25, 1996. The code number appearing on the back of the survey is strictly for follow up purposes and prize drawings.

Thank you again for your valuable time and assistance.

Sincerely,

A handwritten signature in cursive script that reads "Kelly A. Wingard".

Kelly Wingard
 Graduate Student

A handwritten signature in cursive script that reads "Mike Cavey".

Mike Cavey
 4-H Youth Development Specialist

Montana 4-H Camps

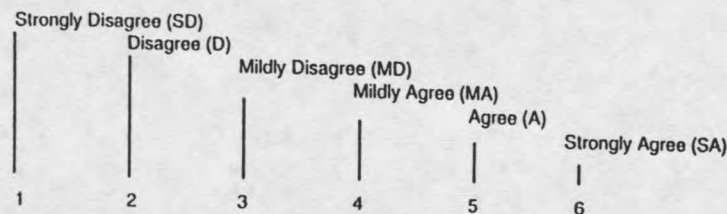


Life Skills Survey

Survey Purpose: The purpose of this survey is to determine the effect of selected 1996 Montana single and multiple county 4-H camps on the development of Montana 4-H life skills on 4-H campers.

Section I. For questions 1 through 42, read the statement and circle the corresponding number that best describes you.

Select the attitude that best describes you in the following statements.



101

Example Question:

EX	Statement:	SD	D	MD	MA	A	SA
1.	I am at ease when I speak in front of a group.	1	2	3	4	5	6

In this example, number 5 is circled, therefore I agree that I am at ease when I speak in front of a group.

I.	Statements:	SD	D	MD	MA	A	SA
1.	I am capable of achieving goals that I set for myself.	1	2	3	4	5	6
2.	My input in solving group problems is helpful to the group.	1	2	3	4	5	6
3.	I can help my friends solve their problems by talking to them.	1	2	3	4	5	6
4.	I budget my time well.	1	2	3	4	5	6
5.	I achieve new goals that I set for myself.	1	2	3	4	5	6
6.	I have patience with people and myself.	1	2	3	4	5	6
7.	I respect other peoples' views and opinions.	1	2	3	4	5	6
8.	I am always working to improve myself.	1	2	3	4	5	6
9.	I have respect for authority.	1	2	3	4	5	6
10.	I take pride in what I do.	1	2	3	4	5	6
11.	I always work to the best of my ability.	1	2	3	4	5	6
12.	I easily solve problems.	1	2	3	4	5	6
13.	I usually solve problems in the same way.	1	2	3	4	5	6
14.	I am responsible for my actions.	1	2	3	4	5	6
15.	I try to do what is best for the group, not just for a few people.	1	2	3	4	5	6

	Statements:	SD	D	MD	MA	A	SA
16.	I am open minded about new ideas.	1	2	3	4	5	6
17.	I do not like to think about confusing matters.	1	2	3	4	5	6
18.	I like to do things that teach me about the world and its people.	1	2	3	4	5	6
19.	I am excited to learn about the world and its people.	1	2	3	4	5	6
20.	I am curious about the world and its people.	1	2	3	4	5	6
21.	I am curious about other cultural foods and customs.	1	2	3	4	5	6
22.	I am a good communicator.	1	2	3	4	5	6
23.	Given the opportunity, I welcome discussion with those who are different from me.	1	2	3	4	5	6
24.	I explain ideas well to other people.	1	2	3	4	5	6
25.	I let other people know my feelings about things.	1	2	3	4	5	6
26.	I listen to other people and understand what they are saying.	1	2	3	4	5	6
27.	I take other peoples' thoughts and feelings into consideration when solving a problem.	1	2	3	4	5	6
28.	I get along well with new people I meet.	1	2	3	4	5	6
29.	I do not become emotional when things happen unexpectedly.	1	2	3	4	5	6
30.	I ask questions about things I want to know more about.	1	2	3	4	5	6

Statements:

SD D MD MA A SA

Additional Comments:

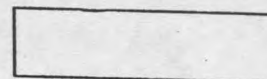
- | | | | | | | | |
|-----|---|---|---|---|---|---|---|
| 31. | I express my feelings to others. | 1 | 2 | 3 | 4 | 5 | 6 |
| 32. | I get along with people who are younger than me. | 1 | 2 | 3 | 4 | 5 | 6 |
| 33. | I get along with adults. | 1 | 2 | 3 | 4 | 5 | 6 |
| 34. | I respect the feelings of people who different from me. | 1 | 2 | 3 | 4 | 5 | 6 |
| 35. | I respect cultures different from my own. | 1 | 2 | 3 | 4 | 5 | 6 |

For questions 36 through 41, a community is defined as a combined population of various kinds of individuals in a common location.

- | | | | | | | | |
|-----|---|---|---|---|---|---|---|
| 36. | I participate actively in my community. | 1 | 2 | 3 | 4 | 5 | 6 |
| 37. | I volunteer my time to make my community a better place to live. | 1 | 2 | 3 | 4 | 5 | 6 |
| 38. | I am just as important as any other person in making my community a better place to live. | 1 | 2 | 3 | 4 | 5 | 6 |
| 39. | Everyone in my community is needed by others. | 1 | 2 | 3 | 4 | 5 | 6 |
| 40. | My rights are as important as the rights of my entire community. | 1 | 2 | 3 | 4 | 5 | 6 |
| 41. | I speak out against what is wrong in my community. | 1 | 2 | 3 | 4 | 5 | 6 |
| 42. | I believe that people from other races are capable of being as successful as me. | 1 | 2 | 3 | 4 | 5 | 6 |
| 43. | The career that I would like to have in the future would allow me to work with people. | 1 | 2 | 3 | 4 | 5 | 6 |

Thank You!!

Identification Number



Fold



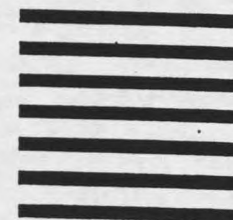
NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 69 BOZEMAN, MT

POSTAGE WILL BE PAID BY ADDRESSEE

MONTANA STATE UNIVERSITY-BOZEMAN
DEPARTMENT OF Agriculture Education
BOZEMAN MT 59715-9947



104



MONTANA STATE UNIVERSITY LIBRARIES



3 1762 10310376 6