The National 4-H Impact Assessment Project survey instrument, developed by a team of extension specialists from across the nation, was used to evaluate Utah’s 4-H members. The instrument was completed by 200 club members to determine their perceptions of the presence of eight critical elements in Utah’s 4-H clubs. Sixty-eight percent of those who completed the surveys were female and 32% were male. The average age for respondents was 13.5 years, 31% lived on rural farms, and 31% lived on rural, non-farms. More than 97% of the participants reported that all eight of the critical elements were present in their 4-H experience. The critical elements receiving the highest number of responses were (1) adults in 4-H expect me to respect the feelings and property of others, (2) I feel safe when I do 4-H activities; (3) 4-H rewards me for being successful, (4) 4-H shows me that volunteering is important, (5) 4-H teaches me to be responsible for my actions, and (6) both boys and girls can be leaders in 4-H.
Introduction

The 4-H club program was initiated in the United States 100 years ago as a national program for youth (Rasmussen, 1989). The mission of 4-H is "to create supportive environments in which culturally diverse youth and adults can reach their fullest potential...the accomplishment of this mission will result in capable, competent, and caring citizens" (United States Department of Agriculture, 1994, p. 3). Commitment to the 4-H mission includes the delivery of non-formal educational programs for youth in home, school, and community settings by volunteers under the direction of the county extension agent of a land grant university system.

As a concept, 4-H began in various locations throughout the United States. Young people needed this type of experience so that they would have the skills necessary to live and work in rural areas. This type of experience was occurring throughout the United States, but it was not until 1914, with the passing of the Smith-Lever Act, that financial support was given to the program (Wessel & Wessel, 1982). Yet, outcomes of the 4-H program have seldom been well documented and advocates have relied on the anecdotes of those who recall how participation in the 4-H program has positively affected their lives. In 1987, Ladewig and Thomas conducted a national study of adults who were former 4-H members, former members of other youth organizations, and individuals who were non-participants in youth organizations. Prior to 1999, little had been done to study the impact of the 4-H program on current 4-H members.

In the spring of 1997, State 4-H leaders from across the nation initiated a nation-wide study to evaluate the 4-H program. In the fall of 1997, 4-H Extension specialists from across the country gathered to outline the basis for a study of the impact of 4-H on youth. Their combined effort led to a national study with the goal being to answer the question: What positive outcomes in youth result from the presence of critical elements in a 4-H experience? (Peterson, 2000).

Purpose and Objectives of the Study

The purpose of this study was to describe the perceptions of Utah 4-H club members’ level of critical elements in a 4-H experience. To accomplish this purpose, the following objectives were designed. Specific objectives of the study were:

1. Review and validate critical elements designed to measure impacts of 4-H.
2. Describe 4-H members’ self-perceived impacts as measured by scales of critical elements.
3. Determine the association among perceived critical elements and the demographic variables: gender, location, and age.

Review of Literature

The goals of the 4-H program have changed in wording over the years, but have remained generally the same. In the 1980s the main goals of the 4-H youth development program were described as "to help young people become self-directing, productive, and contributing members of society. One way we try to do this is to teach basic life skills" (Collins, 1986, p. 11). In the 1990’s, 4-H goals were, “to engage youth in healthy learning experiences, thus increasing self-esteem and problem-solving skills” (United States Department of Agriculture, 1994, p. 1). In 4-
H, youth have the opportunity to excel in their own interests in the development of life skills (Grusec & Lytton, 1988).

**Life Skills Development and Models**

To describe what is learned in 4-H, the term “life skills” is often used. In other words, 4-H teaches young people skills that will help them lead a productive life (Dubas & Snider, 1993). Parents, other adult volunteer leaders, extension agents, peers, and others associated with the 4-H program have a direct impact on the youth involved. Learning life skills through 4-H is a youth development process. Through learning life skills, youth are developing in areas such as leadership, citizenship, and community service.

Skills in working with others, understanding self, communicating, making decisions, and leadership are all considered life skills (Boyd, Herring & Briers, 1992). Life skills are a combination of feeling, thinking, and acting. "Life skills enable a person to: perceive and respond to significant life events, live in an interdependent society, lead a satisfying life, and function effectively in a changing world" (Collins, 1986, p. 11). The development of such skills through experiential learning is the basis of 4-H youth programming (Boyd et al., 1992).

Perhaps the most influential person in defining life skills development in 4-H has been Patricia Hendricks. Her “Targeting Life Skills Model” has provided the framework for all Extension 4-H. She believed that by providing a framework for life skills, program administrators would be able to clearly state program objectives by indicating the desired changes in life skills to be gained through program participation. Within the appropriate framework, youth development experiences can be evaluated more effectively and consistently throughout the programs offered by 4-H. This will allow program administrators to determine if the program successfully influenced youth in the development of life skills (Hendricks, 1998).

In the Targeting Life Skills Model, life skills are based on the 4-H’s: Heart - relating and caring; Head - thinking and managing; Hands – working and giving; Health – being and living. From this basis, life skills are identified for each category. For example, beyond relating, the life skills learned might be cooperation, communication, or conflict resolution. Beyond thinking, life skills learned might be problem solving, decision-making or critical thinking (Hendricks, 1998).

Research at Purdue University developed the Four-Fold Youth Development Model (Barkman, Machtmes, Myers, Horton, & Hutchinson, 1999) incorporates four models of youth development evaluation theories: Targeting Life Skills Model, SCANS Workforce Preparation Model, the Science Process Skill Model, and the Search Institute’s Internal Assets Model. These four models provide a broad based evaluation theory. It is hoped that by combining these four models a common tool for evaluation can be utilized by youth development professionals.

**Impacts of the 4-H Program**

The impact of 4-H on the development of life skills in youth has been documented in various studies. Boyd et al. (1992) compared 4-H and non-4-H youth in their leadership life skills. The study sample consisted of 309 randomly selected Texas 4-H members between the ages of 13 and 19 and 558 non-4-H youth in randomly selected schools. The survey instrument consisted of 21 leadership life skill statements in five measurement scales. Results of the study found 4-H club
members to be significantly higher than non-4-H youth in the level of attainment all five of the life skills measurement scales: leadership, communicating, working with groups, understanding self, and making decisions.

In an Ohio study (Matulis, Hedges, Barrick, & Smith, 1988), 275 4-H alumni from a random sample were mailed questionnaires. The questions consisted of three areas of 4-H impact: self-awareness; career awareness, exploration, and selection; and work competency development. Alumni credit the 4-H program with increasing their self-awareness by identifying with the statements such as “I discovered things I enjoy doing” and “I discovered things I did well”. The impact of 4-H on career awareness, exploration and selection was assessed through statements such as, “I learned that things I enjoyed doing could lead to a career” and “I expanded my knowledge of people or materials available to explore careers of interest to me”.

Ladewig and Thomas (1987) conducted a national telephone survey of 710 former 4-H members, 743 former members of other youth organizations, and 309 non-participants in youth organizations. The goal was to compare youth organizations and their impact on youth development. Those who had joined 4-H and other youth groups were similar in personal life skill characteristics, but different from the non-participants. 4-H participants were found to have a significant development in the life skill areas of knowledge and self-worth. 4-H alumni were significantly higher in the following areas than other youth organization participants: challenging tasks, making decisions, and freedom to develop skills. No significant difference between 4-H participation and other youth organization participation was found in the following areas: planning activities and making a contribution. This study suggests that participation in 4-H and other youth organizations had a positive impact on life skill development.

A tri-state mail survey of 234 youth in Arizona, Colorado, and New Mexico, found that 4-H involvement in fairs, demonstrations, teaching younger members, and community service developed leadership life skills. Through 4-H, youth had the opportunity to work with other youth and adults, set goals and priorities, accept responsibility, and participate in planning, decision-making and evaluation. All of these activities led to the development of leadership life skills (Seevers & Dormody, 1994).

Procedures

Design of the Study
The purpose of this study was to describe the perceptions of Utah 4-H club members’ level of critical elements in a 4-H experience. This study was exploratory in nature utilizing survey research techniques. A survey instrument was developed to describe the 4-H member’s self-perceived impacts as measured by scales of critical elements. The study also determined the relationships among critical elements and selected demographic data of the respondents.

Population and Sample
Participation in the 4-H program is reported by every county in Utah each year on the Federal Extension Service (ES) 237 report. For this research, participation in organized clubs/units was considered the traditional club program and were the population of this study. Participation in special interest, short term, day camp, overnight camping, school enrichment, individual
study/family 4-H, school-aged childcare and instructional TV/video programs were considered the nontraditional special interest program and were not included in this study. Data reported by Utah’s counties for the ES-237 report of 4-H participation in 1999-2000 were collected from the Utah State 4-H Office.

The sample consisted of 4-H clubs reported from 28 of 29 Utah counties. All counties were requested to participate. The number of clubs/units was tallied from the ES237 reports for a total of 2,689 clubs. The number of 4-H participants enrolled in the clubs/units was also calculated for a total of 14,345. Based on Krejcie and Morgan (1970), the size necessary for a representative sample of that population was 375. The number of members per county needed for the sample was calculated by multiplying the number of members in each county by the percentage of members needed for the sample. This number was rounded to the nearest whole number resulting in a total statewide sample size of 388.

Counties were asked to submit a complete club report listing all of their clubs and club leaders. Traditional 4-H clubs were then determined by reviewing the lists and eliminating non-traditional 4-H clubs. The number of clubs needed to have the appropriate sample size was then randomly selected from each county list utilizing a random number generator. Two to three alternate clubs per county were also selected in case the initial clubs selected were unable to participate. Because participating clubs were randomly selected proportionately from the entire population, the results of this study were intended to be generalized to the entire population of 4-H club participants in Utah. However, because only 21 of the 28 counties completed the survey process, the results of this study can only be generalized to the counties that participated.

**Instrumentation**

The instrument used was the 4-H Youth Survey of the National 4-H Impact Assessment Project developed by four teams of Extension Specialists from across the nation (Peterson, 2000). The Critical Elements Work Group defined the eight critical elements for this study. The survey was designed as a tool to gather data on the perceptions of the benefits of the 4-H Youth Development Program and was based on the eight critical elements defined by the Critical Elements Work Group and arranged into six scales of measure. The instrument was assessed for face and content validity by the experts on the development teams utilizing their expertise in youth development and resources available to them. The experts reported that the items maintained content validity in assessing youth outcomes based on the literature and from personal knowledge and experience (Carlson, Marek, McClain, Ramsey, Gerhard, & Astroth, 1997).

Two states field-tested the instrument and the results were then presented to 4-H agents at their national meeting who provided suggestions for improvement of the survey. Minor changes were made in wording and sequencing of questions. Considerable changes were made in the packet describing the implementation process for agents to follow (National Association of Extension 4-H Agents, 1988). Pilot tests were conducted in two randomly selected states in each of the four regions of the country and two randomly selected counties within each state. Pilot testing provided the final review of the instrument and the sampling process itself enabled the research team to develop the instruction packet for the study. The national study then proceeded with 16 randomly selected states, four from each region, none of which had previously participated in the pilot study or field-test study.
The final survey instrument used a Likert-type format with four rankings for the six scales designed to measure critical elements of the 4-H program. The scores assigned to these rankings for tabulating the statistical analysis were as follows: strongly disagree (1), disagree (2), agree (3), and strongly agree (4). The results of the Utah study (post-hoc) were similar to the national study with the exception of “Adults in 4-H” which was lower for the Utah sample.

The last section of the survey was designed to gather demographic data. Nine questions were asked to determine age, grade, grade first started 4-H, gender, race, racial makeup of friends, family makeup, years in 4-H, and community size.

Data Collection
The National 4-H Impact Assessment Project was first introduced to Utah 4-H Agents at their annual meeting April 1999 in Moab, Utah. At least one County Agent or 4-H Assistant per county was given instructions via a satellite broadcast June 2001 to each county office. Instructional packets included with the surveys on the proper implementation of the study within their county were mailed June 18, 2001. They were provided with surveys and consent forms for each of the clubs randomly selected within their county. County Agents were then given the direction to proceed with gathering the data by contacting the club leaders and setting up meeting times. The club gathered for a meeting and the survey was given to all youth with signed informed consent forms. Data collection began August 1, 2001. A reminder was sent by email on August 17, 2001 and asked the agents to complete the process in the next week. A final reminder email was sent on November 16, 2001. The final county returned their surveys March of 2002.

Data Analysis
To meet the first objective of the study, “review and validate critical elements designed to measure impacts of 4-H,” 4-H specialists who originally participated in the development of the study were contacted for affirmation of the critical elements and their validity. Additionally, State 4-H Specialists in states who were concurrently conducting the same research study were contacted to verify the validity of the survey instrument.

For objective two, “describe 4-H member’s self-perceived impacts as measured by critical elements,” the data were reported in frequency of responses. Mean and standard deviation descriptive statistics were also reported for each measure. Objective number three, “determine the association between perceived critical elements and selected demographic variables of gender, location, and age,” responses were analyzed using correlation coefficients between critical elements and selected demographic characteristics. The Likert-type scale used in the survey forces the respondents to select from one of four responses, thus an ordinal scale of measure.

Three variables, gender, age and location, were compared to the responses in the six scales of measure. In order to determine the association of the ordinal responses and the variable gender, a nominal scale of measure with two possible responses, the contingency coefficient (C) was used to compare these two scales of measure. The variable location is a nominal scale of measure with five possible responses. The contingency coefficient was used to determine the association between the ordinal responses and the variable location. The variable age is an interval/ratio
scale of measure. The biserial correlation coefficient (r_{bis}) was used to determine the association between the ordinal responses and the variable age.

The six scales of measure were summated and analyzed. All six scales of measure (“Adults in 4-H,” “Feelings about 4-H,” “Helping others in 4-H,” “Learning in 4-H,” “Planning and Decision Making in 4-H,” and “Belonging in 4-H”) are ordinal in measure. The variable gender is a nominal measure. The point-biserial correlation coefficient (r_{pbis}) was used to determine the association between the scales of measure and the variable gender. The variable location is nominal in measure and the summated scales are ordinal in measure. The contingency coefficient measure was used to calculate the association between the variable location and the scales of measure. The variable age is ratio in measure. The biserial correlation coefficient was used to determine the association between the scales of measure and the variable age.

Data analyses were accomplished through the use of the Statistical Package for the Social Sciences (SPSS) computer program. Whereas this is not a complete population study and generalizations cannot be made to all 4-H participants in Utah, inferential statistical analysis is not considered appropriate.

Results

Responses were received from 200 Utah 4-H members from twenty-one counties. The largest number of 4-H member respondents by age was age 11 (N = 29, 15%) the second largest was tied between ages 13 and 14 (N = 24, 12%). However, there was a wide range of ages in 4-H member respondents. The largest number of 4-H member respondents by grade was grade 6 (N = 31, 16%) followed by grade 4 (N = 25, 13%). Overwhelmingly, the majority of 4-H member respondents were in third grade when they started 4-H (N = 100, 53%) followed by 4th grade (N = 28, 15%). The majority of the respondents were female (N = 134, 68%) as compared to male (N = 62, 32%).

The ethnicity of 4-H member respondents found the majority to be “Caucasian/White” (N = 184, 94%). The second largest ethnic makeup was “Other” (N = 8, 4%). To describe the 4-H member respondent’s friends by ethnic background, the following statement was selected by most 4-H member respondents, “Mostly the same ethnic background as me” (N = 184, 74%). The second statement most selected was, “A mix of ethnic backgrounds” (N = 43, 22%).

The family composition of 4-H member respondents comprised of one hundred eighty respondents (91%) indicated, “I live with my two parents.” “I live with one parent and one step-parent was second (N = 10, 5%).

The years of 4-H involvement by respondents varied. The largest percentage was in “More than 6 years” (N = 50, 26%), followed by “1-2 years” (N = 46, 24%) and “More than 2 years” (N = 40, 21%). The residence of the 4-H member respondents reflected the more rural areas of the state “Rural farm” and “Rural non-farm (less than 2,500 people)” tied for the largest number of respondents (N = 59, 31%). This was followed by “Towns (between 2,500 and 9,999 people)” (N = 42, 22%).

The majority of the respondents indicated that they were involved in a “4-H Club (single project)” (N = 130). The second highest level of participation in a type of 4-H program was for “4-H
Overnight Camp” (N = 89). In contrast, the highest percentage of respondents indicating “Very Involved” for level of involvement was in “Other 4-H Activity/Program” (N = 69%) with “4-H Club (single project)” second (N = 68%).

Objective 1 reviewed and validated critical elements designed to measure impacts of 4-H. This was accomplished by interviews with researchers Kirk Astroth, Professor and Extension Specialist, 4-H Youth Development at the 4-H Center for Youth Development, Montana State University; Ina McClain, State 4-H Youth Development Specialist, Missouri; and Laura Marek, Cooperative Extension Educator, 4-H, Litchfield Extension Center, University of Connecticut. These three experts were involved in the original development of the survey. They stated that the critical elements were established through the research they reviewed in the development of the survey instrument. In addition, Kirk Astroth stated that the critical elements were also validated as they were used throughout youth development organizations, including Collin Powell’s America’s Promise Program, which promoted five promises we as a nation need to make for our nation’s youth.

Validity was established through research and by comparison with other organizations. The National 4-H Impact Assessment Project (2001) established content validity standards with the pilot phase involving eight states and 480 individuals and again with the complete study that required 16 states to participate with 2,467 individuals. Personal interviews were also conducted with two state 4-H specialists, Lisa Lauxman, Arizona, and Jeff Howard, Texas, who were concurrently conducting the same study in their states. To date, four states, Arizona, Missouri, South Dakota and Texas in addition to Utah have utilized the same instrument in research studies within their states. Furthermore, Montana utilized some of the statements from this instrument in conducting a similar study designed to assess the effectiveness of extracurricular involvement, including 4-H, on youth.

Critical elements in the 4-H experience have been indicated in many arenas. The pilot study and the national study utilized the instrument. In addition five states have utilized the survey instrument for studies in their states. A sixth state used some of the items from the survey in a study of out of school programs. Face validity is established through the widespread use of the survey instrument that assessed critical elements and similar conclusion reached.

Objective 2 was to describe 4-H member’s self-perceived impacts as measured by scales of critical elements. The self-perceived impacts of critical elements were collected using the 4-H Impact Assessment Survey. Using the instrument’s scale of 1 to 4, the 4-H members indicated strongly disagree (1), disagree (2), agree (3), and strongly agree (4) in all six of the critical element scales.

The first scale in the survey was concerned with the critical element “Adults in 4-H.” The description given for “adults” included county agents, staff, and volunteers. Analysis of individual survey items revealed that within the critical element “Adults in 4-H” the four statements with the highest mean response were “Adults in 4-H expect me to respect the feelings and property of others” (M = 3.55, SD = .88), “Adults in 4-H help me to work with others as a team” (M = 3.33, SD = .67), “Adults in 4-H make me feel good about myself” (M = 3.32, SD = .64), and “Adults in 4-H help make me feel that I can make a difference” (M = 3.24, SD = .68).
Three statements were presented in inverse language. For example, “Adults in 4-H expect too much from me.” The members rated this statement at $M = 1.88$, $SD = .73$ along the scale of disagree to strongly disagree. “Adults in 4-H do NOT include me in big decisions” ($M = 2.17$, $SD = .89$) and “Adults in 4-H do NOT see problems from a kid’s point of view” ($M = 2.29$, $SD = .88$) were the remaining two inverse language statements.

The second set of questions in the survey was concerned with the critical element “A physically and emotionally safe environment.” The survey scale was titled “Feelings about 4-H.” For this set of questions the top four items were “I feel safe when I do 4-H activities” ($M = 3.43$, $SD = .56$), “I feel good during 4-H activities” ($M = 3.40$, $SD = .60$), “In 4-H I feel it’s safe to try new things” ($M = 3.37$, $SD = .59$), and “In 4-H I get to know everyone” ($M = 3.24$, $SD = .67$). The second set of questions also presented statements in inverse language. “People in 4-H are rude” ($M = 1.57$, $SD = .71$) and “In 4-H I often feel embarrassed or put down” ($M = 1.76$, $SD = .82$) were statements used to determine negative attitudes about 4-H participation.

The third set of questions was designed to measure two critical elements: “Opportunity for Mastery” and “Engagement in Learning” and was summated as “Learning in 4-H”. The three responses with the highest mean scores from 4-H members were: “4-H rewards me for being successful” ($M = 3.34$, $SD = .66$), “In 4-H, I often try new or different things” ($M = 3.31$, $SD = .69$), and “In 4-H, I explore my own interests” ($M = 3.24$, $SD = .59$).

The fourth set of questions was titled “Helping Others.” This scale was used to measure the critical element “The opportunity to value and practice service for others.” The three items with the highest mean scores were: “4-H shows me that volunteering is important” ($M = 3.39$, $SD = .62$), “4-H teaches me to help other people” ($M = 3.35$, $SD = .51$), and “4-H teaches me to be involved in my community” ($M = 3.29$, $SD = .61$).

The fifth set of questions, a scale titled “Planning and Decision Making in 4-H,” was designed to measure the critical elements “An opportunity for self-determination” and “An opportunity to see oneself as an active participant in the future.” The statements with the highest mean responses were: “4-H teaches me to be responsible for my actions” ($M = 3.36$, $SD = .58$), “4-H helps me set goals” ($M = 3.31$, $SD = .57$), and “4-H teaches me that I can make my own decisions” ($M = 3.26$, $SD = .64$).

The final set of questions was entitled “Belonging in 4-H” and was designed to measure the critical element “An inclusive environment.” The items with the highest mean score were “Both boys and girls can be leaders in 4-H” ($M = 3.64$, $SD = .54$), “All kinds of kids are welcome in 4-H” ($M = 3.59$, $SD = .55$), and “Boys and girls have equal chances to do everything in 4-H” ($M = 3.42$, $SD = .70$).

In order to determine the mean scores for the six scales of measure, the statements that were presented in inverse language were reverse coded so that the scales could be summated. The scale that was rated the highest was “Belonging in 4-H” ($M = 3.29$, $SD = .47$), followed closely by “Helping others in 4-H” ($M = 3.29$, $SD = .36$). It is interesting to note that the lowest rated scale was “Adults in 4-H” ($M = 3.13$, $SD = .44$).
Objective 3 determined the association among perceived critical elements and the selected demographic variables of gender, location and age. Correlation coefficients showed that while some of the measures had a statistically significant correlation between items, the low correlation coefficient does not provide much practical significance. Cohen and Manion (1994) stated that when there are more than 100 participants in a study and the correlation coefficients range from .20 to .35, the relationship may be statistically significant, yet there is only a slight relationship between the variables and there is little value in predicting behavior.

The first variable, gender, found statistically significant association in the scale “Adults in 4-H” for the statements “Adults in 4-H expect me to respect the feelings and property of others” (C = .23) and “I feel comfortable going to the adults in 4-H for advice” (C = .24). Females were more likely than males to rate higher the scales for adults in 4-H.

There were no statistically significant variables between the scale “Feelings about 4-H” and gender. The national study, however, found that females had higher scores than males in this scale of measure (National 4-H Impact Assessment Project, 2001). The Texas study also found that females felt more strongly that 4-H provides a safe environment than did males (Howard et al., 2001).

In the scale “Learning in 4-H” and the variable gender, “In 4-H I’ve learned to find information about topics that interest me” (C = .22), “I often help others learn in 4-H” (C = .23), and “In 4-H I often try new or different things” (C = .22) were all found to be statistically significant. Females expressed a greater sense of learning in 4-H than males on the three statements. The national study also found that females were more likely to score this scale higher than males (National 4-H Impact Assessment Project, 2001).

For the variable gender and the scale “Helping others,” “4-H teaches me to be involved in my community” (C = .20) and “4-H helps me to be a leader” (C = .23) were found to be statistically significant. Females were more likely to rate these statements higher than males. In the Texas study, females were also more likely than males to rate favorably the statements related to helping others (Howard et al., 2001). Similarly, the national study found that females rated the statements in this scale higher than males (National 4-H Impact Assessment Project, 2001).

In the scale “Planning and Decision Making in 4-H” and the variable gender, “4-H teaches me to do things on my own” (C = .22) and “4-H helps me to set goals” (C = .19) were found to be statistically significant. Again, females were more likely than males to rate higher planning and decision-making in 4-H. Similarly, in both the national study and the Texas study, females were more likely than males to rate the planning and decision making scales higher (Howard et al., 2001; National 4-H Impact Assessment Project, 2001).

For the variable gender and the scale “Belonging in 4-H,” the statements “I feel like I belong in 4-H” (C = .23), “Both boys and girls can be leaders in 4-H” (C = .19), and “My best friends are in 4-H” (C = .26) were all found to be statistically significant. More females reported a sense of belonging in 4-H than males. In the national study, females were more likely than males to rate the scale “Belonging in 4-H” higher than males (National 4-H Impact Assessment Project, 2001). In the Texas study, two statements were found to have statistically significant differences between
male and female respondents. The statements “Both boys and girls can be leaders in 4-H,” and “In 4-H, there are kids who are different than me,” females rated higher than males (Howard et al., 2001). Overall, females expressed a higher level of agreement with the six scales of measure than did males. This was true of not only the Utah study, but the national study and the Texas study as well.

For the variable location and the scale “Adults in 4-H” two statements were found to be statistically significant: “Adults in 4-H always listen to what I have to say” ($C = .32$) and “Adults in 4-H expect me to respect the feelings and property of others” ($C = .29$). Four-H member respondents from more urban settings rated a positive relationship with adults in 4-H higher than those from a more rural setting.

In the scale “Feelings about 4-H” and the variable location, “In 4-H I feel that it’s safe to try new things” ($C = .40$), “In 4-H I can try new things and not worry about making mistakes” ($C = .35$), and “I feel safe when I do 4-H activities” ($C = .33$) were all found to be statistically significant. 4-H member respondents from more urban settings rated feelings about 4-H higher than those from more rural settings.

For the scale “Planning and Decision Making in 4-H” and the variable location, both statements “4-H teaches me that I can make my own decisions” ($C = .40$) and “4-H teaches me to be responsible for my actions” ($C = .32$) were found to be statistically significant. Four-H member respondents from more urban settings rated “Planning and Decision Making in 4-H” higher than those from more rural settings. Similarly, in the Texas study, an added statement, “4-H teaches me to go along with the crowd,” was found to be statistically significant when compared with the variable location. Urban 4-H members were more likely than rural 4-H members to agree with the statement (Howard et al., 2001).

There were no statistically significant variables between the scale “Belonging in 4-H” and location. In contrast, the Texas study found that rural 4-H members more strongly agreed with the statement, “My best friends are in 4-H,” than did 4-H members from more urban areas of the state (Howard et al., 2001). In Utah, 4-H members from a more urban setting were more likely to rate the scales higher than those from a more rural setting. This was not true in all instances in the Texas study.

For the variable age and the scale “Adults in 4-H,” the statement “Adults in 4-H make me feel good about myself” ($rbis = -.16$) was found to be statistically significant. Older youth in the 4-H program rated adults working with 4-H lower than younger youth in 4-H. In the national study, younger respondents reported higher scores than did older respondents (National 4-H Impact Assessment Project, 2001).

For the scale “Feelings about 4-H” and the variable age, the statements “I feel good during 4-H activities” ($rbis = -.14$), “In 4-H I get to know everyone” ($rbis = -.14$), and “People in 4-H are rude” ($rbis = .24$) were found to be significant. Older youth in 4-H were more likely to report that “People in 4-H are rude.” Older youth rated feelings about 4-H lower than did younger youth. The national study found that younger respondents rated the scale “Feelings about 4-H” the highest scores while 13-14 year olds rated it the lowest (National 4-H Impact Assessment Project, 2001).
The Texas study found that younger 4-H members more strongly agreed with the scale. However, for the statement, “People in 4-H are rude,” 4-H members 14 and older agreed with this statement more than did younger 4-H members (Howard et al., 2001).

The variable age and the scale “Learning in 4-H” found one statistically significant statement “I often help others learn in 4-H” (rbis = .16). Older youth in 4-H rated this statement higher than did younger members. In the national study, age was the most statistically significant factor for this scale. Younger respondents had higher scores than older respondents and those aged 13 and 14 had the lowest ratings of any of the age groups (National 4-H Impact Assessment Project, 2001).

In the national study, for the scale “Helping others in 4-H,” younger members had higher scores than older members and those aged 13 and 14 again had the lowest scores. It was the same for the scale “Planning and Decision Making in 4-H.” There were no statistically significant findings for the national study in the scale “Belonging in 4-H,” and the variable age (National 4-H Impact Assessment Project, 2001). In the Texas study, two statements were found to be statistically significant between the scale “Helping others in 4-H,” and age. “4-H helps me to be a leader,” and “I have done a 4-H project to make life better for others,” 4-H members 14 and older more strongly agreed with these statements (Howard et al., 2001). For the scale, “Planning and Decision Making in 4-H” and the variable age, older Texas 4-H members were more likely to agree that 4-H teaches them to make their own decisions and that 4-H teaches them to do things on their own. Similarly, for the scale “Belonging in 4-H,” 4-H members 14 and older more strongly agreed that kids in 4-H are treated equally (Howard et al., 2001).

Older youth in the 4-H program are more likely to be cynical about their 4-H experience, yet they also recognize that they are gaining leadership skills by helping others. While they rated adults in 4-H lower than younger members in all six scales of measure, they did rate the scale high enough to reflect their knowledge that they do have adults they can count on in 4-H.

Recommendations

Based upon the conclusions of this study, the following general recommendations are offered. It is recommended that the Utah 4-H agents and staff assistants be informed of the findings generated by this study regarding the critical elements in the 4-H experience. The information will challenge them to provide effective leader training that will enable volunteer leaders to provide positive 4-H experiences for youth that include the critical elements in the 4-H program.

Since the volunteers are the leaders working directly with youth in the 4-H program, we need to provide adequate training for them to have an effective yet enjoyable experience. Too often leaders see themselves as imparting information in specific project areas for which they have knowledge and expertise. We need to help volunteers see that their role is not only to teach about projects, but also to build life skills. We need to develop training on what the goals of the 4-H program are and the volunteer’s role in achieving those goals. The goal of the 4-H program is to provide an environment that produces capable, competent and caring citizens. This statement is too vague for anyone to understand.
We need to impart the expectation that all youth who participate in the 4-H program have the following critical elements as part of their 4-H experience. The critical elements can be tied to the 4-H pledge:

**I pledge my head to clearer thinking**
Engagement in learning.
Opportunity for mastery.
Opportunity for self-determination.
Opportunity to see self as active participant in the future.

**My heart to greater loyalty**
Positive relationship with a caring adult.
Inclusive environment.

**My hands to larger service**
Opportunity to value-practice service to others.

**And my health to better living**
Physically-emotionally safe environment.

When the eight critical elements of the 4-H experience are present, youth are more likely to have a positive educational experience that will enable them to become capable, competent and caring citizens. Thus, the goal of the 4-H program can be achieved.

References


Ladewig, H., & Thomas, J.K. (1987). *Does 4-H make a difference? The 4-H alumni study*. Texas Agricultural Extension Service. Texas A&M University, College Station, TX.


