

The Leadership Impact of Beef Cattle Projects

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Introduction

Leadership development among youth can be developed and measured in a variety of ways. This study examined the youth leadership and life skills development of youth involved in a beef project. Youth Leadership and Life Skills (YLLS) can be defined as the “development of life skills necessary to perform leadership functions in real life” (Miller as cited in as cited in Dormody & Seevers, 1994, p.65). Specific examples include decision making, relationships, learning, management, understanding self, group processes, and communications.

Why would the development of youth leadership life skills be significant to beef cattle exhibitors and to society? Boyd, Herring, and Briers (1992) suggested that “the development of life skills allows youth to cope with their environment by making responsible decisions, having a better understanding of their values, and being better able to communicate and get along with others” (¶ 2). Learning a trade or a technical skill is important, but as Brock (1992) states in the Secretary’s Commission on Achieving Necessary Skills (SCANS), “there is much more to life than earning a living, and we want more from education than productive workers. We want citizens who can discharge the responsibilities that go with living in a democratic society and with becoming parents” (p.4). Brock’s (1992) statement impresses upon our society the great need for youth to develop leadership and life skills in order to become productive members of society. Shurson and Lattner (1991) also iterated the importance of presenting young people with opportunities to investigate career options and develop essential life skills so as to become constructive members of society.

This study examines livestock project exhibitors and more specifically, beef cattle exhibitors and their development of leadership life skills. Students with a livestock or beef project care for, feed, water, and show/exhibit the animal(s), which have been entrusted to them. What is particularly significant about livestock project exhibitors as compared to other youth groups? Researchers (Boleman, Cummings, & Briers, 2005) who have studied the effects of livestock exhibition on life skill development have found that there are many benefits for young people who participate in livestock projects. For example, Sawyer (as cited in Rusk, Summerlot-Early, Machtmes, Talbert, & Balshweid, 2003) found that Oregon 4-H beef, sheep, and swine members identified key life skills such as responsibility, decision-making, communication, getting along with others, and leadership as being developed by livestock exhibition experiences. Similarly, Boleman et al. (2005) found that livestock exhibitors indicated that they were developing life skills as a result of exhibiting livestock.

"One purpose of the 4-H animal projects is to teach young people how to feed, fit and show their animals. The more important purpose is to provide an opportunity for personal growth

and development of the young person" (Hammatt as cited in Rusk and Machtmes, 2003, ¶ 1). But does involvement in youth livestock projects, specifically beef projects, really enhance and contribute to leadership and life skills development? In addition, does leadership and life skills development really make a significant difference in an individuals' ability to function in society? Why do parents, young people, and agriculture education professionals spend great amounts of time, money, and resources investing in youth livestock projects? Although several studies have been conducted regarding youth leadership and life skill development (YLLSD) in youth organizations (Seevers & Dormody, 1994; Wingenbach & Kahler, 1997; Rusk, Martin, Talbert, & Balshweid, 2002; Boyd et al., 1992), very little research has been conducted that specifically addresses the impact of livestock project exhibition on YLLSD, and even fewer studies have focused on the influence of beef projects.

The development of leadership and life skills in youth is very important to ensuring the preparation of future leaders. Fox, Schroeder, and Lodl (2003) said that one of the most imperative issues facing the 4-H organization and other youth organizations is how they can best influence youth to become productive and useful members of society. It has been estimated that 25% of United States' youth participate in high-risk activities which include heavy alcohol consumption, drug use, tobacco use, and failing to attend school or perform poorly at school (Boyd et al., 1992). Boyd, et al. (1992) said that the high percentage of delinquent youth indicates a lack of leadership and life skills such as working with others, communication, and other skills needed for adulthood.

Some researchers contest that enrollment in programs like 4-H, which is a main avenue for youth livestock project involvement, and others which are founded upon experiential learning are needed for youth to acquire life and leadership skills (Boyd, et al., 1992). The National FFA Organization, which is another avenue for youth livestock exhibition, has claimed the development of agricultural leadership skills as one of its chief aspirations since its establishment in 1928 (Wingenbach & Kahler, 1997). Since a primary aim of organizations like 4-H and FFA, who offer beef project exhibition programs, is youth leadership and life skills development, this study was conducted to explain the youth leadership life skills development impact of youth participating in the exhibition of beef projects.

Literature Review

Experiential Learning

Experiential learning is one of the key theoretical bases for this study. The 4-H youth organization realizes the development of life skills through experiential learning (i.e. livestock projects) as the foundation of its programming (Boyd et al., 1992). Young people must be presented opportunities to investigate career options and develop essential life skills to become constructive members of society (Shurson & Lattner, 1991). 4-H and other youth organizations like the National FFA Organization recognize experiential learning activities such as livestock projects as an avenue to the development of life skills.

Experiential education is not a new idea to the realm of education. Numerous individuals in academia have proposed learning models that resembled experiential learning. John Dewey, who is perhaps the most influential scholar in education of the twentieth century (Smith, 1997),

strongly believed in offering experiential learning opportunities to learners (Richardson, 1994). Dewey (1938) stated:

...all principles by themselves are abstract. They become concrete only in the consequences which result from their application. Just because the principles set forth are so fundamental and far-reaching, everything depends upon the interpretation given them as they are put into practice in the school and the home. (p. 6)

In addition, Dewey believed that a worthwhile education should entail purpose for society and the student learner. The value of an experience is determined by present and future impacts on an individual and the degree of societal influence (Neill, 2005). Furthermore, Dewey (1938) remarked that “there is an intimate process of actual experience and education” (p. 7). John Dewey was an educator who believed, rather than teaching abstract content, individuals should be given learning opportunities which are expressly in touch with reality (Wulff-Risner & Stewart, 1997).

Leadership and Life Skill Development

In addition to experiential learning, the body of research in leadership and life skills development was also a theoretical anchor for this study. As is mentioned above, Miller (as cited in Dormody & Seevers, 1994) defined youth leadership life skills development (YLLSD) as the “development of life skills necessary to perform leadership functions in real life” (p. 65). In addition, Miller separated the leadership life skills students developed through involvement in the 4-H program into seven categories which include decision making, relationships, learning, management, understanding self, group processes, and communications. Using Miller’s categorical breakdown of leadership life skills, Dormody, Seevers, and Clason (1993) developed the Youth Leadership Life Skills Development Scale (YLLSDS).

Hendricks (1996), using the Targeting Life Skills model defined life skills as “abilities individuals can learn that will help them to be successful in living a productive and satisfying life (¶ 3).” Boyd, et al. (1992) described examples of leadership life skills as communication, decision making, and self-understanding. These skills and others are those which will enable youth to transition and function as an adult.

Impacts of Livestock Exhibition

Many youth leadership organizations have worked to instill life skills in young people through various activities. The 4-H organization desires its members to receive more than just trophies and money for their achievements, but also gain essential life skills that will enable them to become better citizens (Rusk, et al., 2003). One of the chief aims of the National FFA Organization has been to develop agricultural leadership skills in its members (Wingenbach & Kahler, 1997). School administrators, parents, and youth organizations have raised the question of the legitimacy of youth raising livestock projects as a means to develop leadership and life skills. Proprietors of the Cooperative Extension Service have also investigated the idea of life skill development in youth who exhibit livestock (Boleman, et al., 2005).

Rusk, et al. (2003) developed a study to determine project and life skills as a result of 4-H member's involvement with the beef, sheep and swine projects. The Rusk et al. study surveyed Indiana youth who exhibited 4-H animal projects. Results of the study indicated youth were able to accomplish project skills in the categories of sportsmanship, safety, animal grooming, and animal selection. The study's results also showed that 4-H members used responsibility skills developed from raising 4-H animal projects to complete homework (2003).

In a similar study Boleman, et al. (2005) found that livestock exhibitors indicated that they were developing life skills as a result of exhibiting livestock. The study used a questionnaire to survey 4-H members exhibiting beef, swine, sheep, and goats. Those surveyed indicated that accepting responsibility, setting goals, and developing self-discipline were the top three life skills influenced by exhibiting the beef project. Those involved with the swine project reported accepting responsibility; developing self-discipline; and self motivation as top life skills influenced by the project.

Davis, Keith, Williams, and Frazee (2000) developed a qualitative study that sought to validate the benefits of livestock exhibition. After conducting interviews of 4-H youth exhibitors, parents, advisors and show officials, the researchers identified six themes that resulted from competition through the exhibition of livestock. They were: social relations; character; family; competition; new cultures and environments; and finance for education. A similar study was conducted using a case study of an autistic child who exhibited livestock (Davis, Akers, Doerfert, Keith, & McGregor, 2005). The research reported similarities between the special needs exhibitor studied and main stream exhibitors who participated in earlier research studies. Such themes regarding the benefits of livestock exhibition emerged as social relations, family, and responsibility/knowledge and care of animals.

Shih and Gamon (1997), in a study to assess the educational needs of the extension's 4-H beef program found positive results concerning life skill development. The study showed that among life-skill topics rated by more than 50% of experts as Very Important (VI) or Extremely Important (EI), honesty, money management, pride in a job well done, and self-confidence were at the top of the list.

In a study conducted by Carol K. Ward (1996), New Jersey 4-H alumni were asked to respond to perceived impacts of exhibiting livestock projects on life skill development. Life skills such as spirit of inquiry, decision making, ability to accept responsibility, maintain records, and public speaking were surveyed by respondents. The life skill *ability to accept responsibility* received the highest score by respondents. The study indicated that participation in the 4-H animal science program does have a positive affect on life skill development.

Sawyer (as cited in Rusk, et al., 2003) conducted a study involving Oregon 4-H beef, sheep, and swine members which identified key life skills being developed. Responsibility, decision-making, communication, getting along with others, and leadership were all life skills that were reported as being developed by livestock exhibitors.

Research examining the Iowa 4-H swine project effects on life skill and subject matter skill development (Gamon & Dehegehus-Hetzel;1994) reported that swine exhibitors perceived

that participation in the project had a positive effect on their life skill development. Parental support may play a role in life skill development of youth involved with livestock projects. Gamon and Dehegehus-Hetzel (1994) also discovered that respondents rated parents as their top source of information regarding the swine project. The researchers also stated that parents played a strong part in swine project participant's decision to enroll in the project.

Relationship between Livestock and YLLSD

A greater number of studies have been published that have considered relationships between related livestock activities and youth life skills development. Rusk, et al. (2002) said that the 4-H livestock program not only benefits youth in teaching proper livestock evaluation, but also profits youth by the development of life skills. The Indiana study surveyed 4-H livestock program alumni on the influences of the program on personal growth and career preparation. Alumni rated the ability to verbally defend a decision, livestock industry knowledge, oral communication, and decision making as skills having been most influenced by the 4-H livestock judging program.

A study conducted by Nash and Sant (2005) investigated the Idaho 4-H livestock judging program, and life skill development results were again positive. The participants involved in the study rated the influence of the 4-H livestock judging activity on specific life skills. The surveyed population consisted of those who had participated in livestock (including dairy) or horse judging in Idaho. Data concluded that the program was greatly influential in animal industry knowledge development and showed at least moderate influence on development of beneficial life skills as related to workforce preparedness.

Shurson and Lattner (1991) surveyed swine project members in Ohio about swine production knowledge, career knowledge, and life skill development. In measuring life skill development, respondents revealed they learned the most about sportsmanship and working with others. Accepting responsibility, communicating with others, and making decisions were also listed as life skills developed by swine project participants.

Predictors and Correlates of Life and Leadership Development

Two of the primary objectives of this research study were to determine the livestock exhibition variables and exhibitor demographic variables that may influence youth leadership and life skills development. Figure 1 serves as a conceptual model of variables that the literature indicated may influence youth leadership life skills development among livestock project exhibitors.

According to the literature, YLLSD is affected by the years an exhibitor is involved with a livestock project. Sawyer (as cited in Rusk et al., 2003) determined that 4-H livestock members demonstrated an evolution of development the longer they were involved in a project. A study assessing the impact of exhibiting beef, swine, sheep, and goat 4-H projects on life skills development found low, positive relationships between years of exhibition and 13 specified life skills. Additional species has also been a variable influencing YLLSD. According to Boleman,

et al. (2005) different leadership skills were apparent depending upon the type of species shown (i.e. beef exhibitors scored higher than goat exhibitors on organizational skills and goal setting).

Age and gender have also been variables of interest in leadership development studies. While attempting to describe significant relationships between self-perceived leadership life skills development of Iowa FFA members and age, Wingenbach and Kahler (1997) reported that age ($r = .27$) ranked third in significance behind FFA leadership activities ($r = .37$) and years of membership in the FFA ($r = .31$). Gender is variable that is sometimes found to be related to leadership development. In terms of gender as a correlate of leadership development, Seevers and Dormody (1994; 1995) found gender explained 0.9% and 1.8% of variance in YLLSDS scores when controlling for self-esteem, years in 4-H, age, ethnicity, and place of residence in two separate studies. However, researchers concluded that gender, along with other demographic variables, was not related to leadership life skills development.

The FFA and 4-H organizations have been popular activity-based groups in which researchers have found evidence of leadership life skill development. Boyd, et al. (1992) found that participation in the 4-H program was positively correlated to perceived leadership life skill development of Texas 4-H members. In addition, they found that 4-H youth rated their leadership life skills development higher than youth who were non-members. In their 1994 study, Seevers and Dormody found that leadership activities participated in by senior 4-H members proved to be an important predictor of youth leadership life skills development. The National FFA Organization and its activities has also been a contributor of leadership and life skill development among youth (Ricketts & Newcomb, 1982; Wingenbach & Kahler, 1997). For example, Dormody and Seevers (1994) found that participation in FFA leadership activities displayed a weak positive relationship with youth leadership life skill development, which explained 2.3 percent of the variance in YLLSDS scores.

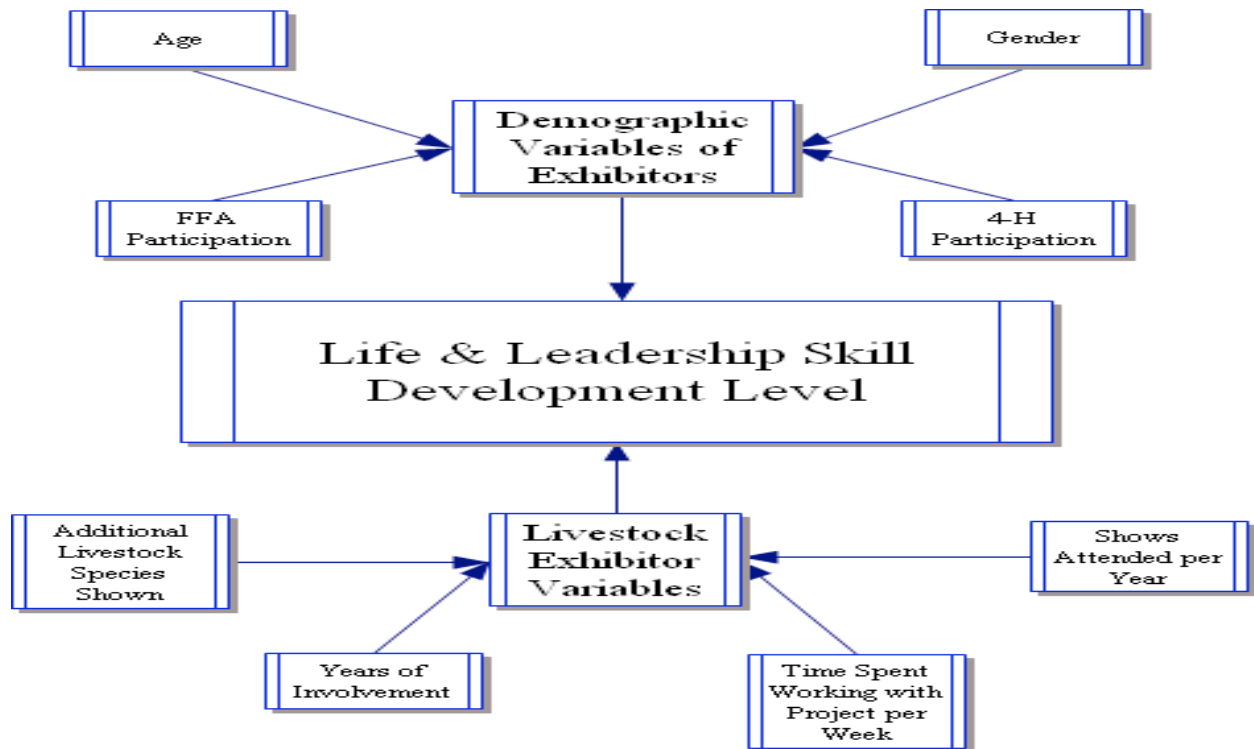


Figure 1.
Conceptual Model of Factors Impacting YLLDS Development of Beef Cattle Project Exhibitors (Walker, 2006).

Methods

The primary purpose of this study was to determine the youth leadership and life skill development of beef project exhibitors. This study specifically sought to:

- Describe National Junior Angus Association members by their age, gender, FFA participation, 4-H participation, and influence of significant individuals on members' decision to participate in the beef project.
- Describe the self-perceived youth leadership life skills development of National Junior Angus Association members as a result of involvement in the beef project.
- Determine the relationship between the self-perceived youth leadership life skills development of National Junior Angus Association members and the livestock exhibition variables; additional species shown, shows per year, years of involvement, and time spent working with project.
- Determine the relationship between the self-perceived youth leadership life skills development of National Junior Angus Association members and their age, gender, FFA participation, and 4-H participation.

This study was conducted with the authorization and support of the American Angus Association. This study was conducted with members of the National Junior Angus Association. Implications and conclusions from this study could benefit both the National Junior Angus

Association as well as young people around the nation. Leadership development is a primary focus of the National Junior Angus Association (NJAA). The Junior Activities Department of the American Angus Association (AAA) began in 1956 in an effort to encourage young people's involvement and increase proficiency with Angus steer and heifer calf projects. Today the Junior Activities Department of the AAA has enlarged its' purposes by helping junior members develop character, skills, and leadership potential through the offering of a variety of activities, services, and projects for members to participate in. The leadership nature of the NJAA and its large population size were primary reasons for targeting the Association for this study.

This descriptive and *ex post facto* study contacted the National Junior Angus Association (NJAA) and contractually obtained a population frame of NJAA members ($N = 4,228$), ages 18-21. A sample size of 374 was needed for the decided upon confidence interval of ± 4.84 in order to represent the population. A simple-random sample was taken from the accessible population of NJAA members ($n = 374$) using the random sample generator function of SPSS.

Given the literature review and subsequent conceptual model of factors impacting the YLLDS of beef project exhibitors, the independent variables in this study were gender, age, FFA participation, 4-H participation, additional species shown, shows attended per year, years of project involvement, time spent working with project, and level of influence specific individuals had on youth's decision to exhibit a beef project. The dependent variable represented in this study was total self-perceived youth leadership life skill development (YLLSD).

Survey implementation followed Dillman's (2000) system of five compatible contacts. The pre-post card mailing was conducted on May 17, 2006 (1st contact). Twenty-three days later the first survey packet was sent out containing YLLSDS (Dormody, et al., 1993) survey, demographic survey, consent forms, and a stamped addressed return envelope (2nd contact). Approximately three weeks later a reminder post-card was mailed (3rd contact). On October 2, 2006 a second survey packet was mailed (4th contact). The final data collection was administered, again by mail, on November 3, 2006 (5th contact). The complete duration of the study lasted from May 10, 2006 to December, 2006.

The total youth leadership life skills development level was determined by participants scores obtained on the Youth Leadership Life Skills Development Scale (YLLSDS) (Dormody, et al., 1993). The instrument listed 30 specific leadership life skills and used a four-point summated rating scale ranging from 0 to 3, to measure the amount of leadership skill improvement gained as a result of their beef project experiences. YLLSDS scores were totaled by determining the percentage correct out of a possible score of 90. According to the authors, the YLLSDS was assessed for face and content validity by University of New Mexico faculty representing a broad spectrum of professional backgrounds. In addition, the assessment tool was field tested on 262 New Mexico senior FFA members using a stratified random sample. The Cronbach's alpha reliability coefficient generated from the field test was .98.

The second tool used in the study was a researcher-developed demographic survey which consisted of questions pertaining to livestock exhibitor variables (species, shows per year, years of involvement, level of competition, time spent working with project/week, and influence of specific individuals on youth's decision to exhibit a beef project) and further leadership

involvement and personal characteristics (gender, age, FFA participation, 4-H participation). Because the demographic instrument mostly analyzed personal attributes, which is known to produce “very little measurement error” (Salant & Dillman, 1994, p. 87), reliability was not established for the demographic questionnaire.

There were 102 respondents from the sample of 344 possible participants resulting in a response rate of approximately 30%. Due to specific regulations given by the NJAA, neither email addresses nor phone numbers were obtainable. Therefore, follow-up contacts were restricted to reminders and additional surveys through the mail. According to Miller and Smith (1983), one can control for non-response by comparing late respondents to early respondents to determine if they are similar. Late respondents ($n = 26$) were analyzed and compared to early respondents ($n = 76$) who had completed and returned surveys. Key variables of the study were analyzed using Independent sample t-tests and there were no significant differences between early and late-respondents ($t = .440, p > .05$).

Descriptive statistics were used to report the demographic data of survey respondents. Means and standard deviations of YLLSD scores were reported. Independent samples t-tests and one-way analysis of variance procedures were used to identify differences in youth leadership life skills development scores as a function of age, gender, FFA participation, and 4-H participation. Pearson’s product moment (r) statistics were conducted to identify relationships between youth leadership life skills development and various independent variables.

Findings

Objective One: Describe National Junior Angus Association Members by their Age, Gender, FFA Participation, 4-H Participation, and Influence of Significant Individuals on Members’ Decision to Participate in the Beef Project.

NJAA members’ reported age ranged from 18-21, $M = 18.98, SD = .88$. Of the 101 respondents, 37 (36.6%) were 18 years old, 32 (31.7%) were 19 years old, 29 (28.7%) were 20 years old, and 3 (3%) were 21 years old. The 18 year-old group was represented as the highest percentage age group (36.6%). Additionally, the majority of participants in this study were male ($n = 57$) 56.4%. Females ($n = 44$) made up 43.6% of the sample.

Respondents ($n = 101$) reported a range of zero to seven years of participation in FFA with an average of $M = 3.19, SD = 2.22$. The highest frequency ($f = 32$) of FFA participation reported by respondents was 4 years at 31.7%. The second highest frequency ($f = 27$) of FFA participation was that of non-participants at 26.5%. 16 respondents (15.8%) reported 5 years of FFA participation (See Table 1). Years in 4-H reported by respondents ($n = 101$) ranged from zero to sixteen years with an average of $M = 8.52, SD = 3.42$. Almost 29 percent of respondents ($n = 29$) reported 10 years in 4-H while 14.9% ($n = 15$) reported 9 years in 4-H. Seven respondents reported zero years in 4-H.

Table 1. Frequencies and Percentages for Years in FFA and 4-H ($n = 101$)

Years in FFA	f	%
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1	1	1.0
2	5	5.0
3	7	6.9
4	32	31.7
5	16	15.8
6	8	7.9
7	5	5.0
Total	101	100.0
Years in 4-H		
0	7	6.9
1	1	1.0
2	1	1.0
3	2	2.0
4	3	3.0
5	3	3.0
6	5	5.0
7	4	4.0
8	6	5.9
9	15	14.9
10	29	28.7
11	14	13.9
12	6	5.9
13	4	4.0
16	1	1.0
Total	101	100.0

On a scale of 1-5 (1 = Not Influential At All and 5 = Essential) respondents reported parents as being the most influential on their decision to exhibit a beef project with an average of $M = 4.41$, $SD = .87$ (Table 2). Of the 101 respondents, 62 (61.4%) recorded parents as an “Essential” influence on their decision to exhibit a beef project. The influence of siblings was reported as “Moderately Influential” with an average $M = 3.02$, $SD = 1.56$ ($n = 98$).

Table 2. Influence of Significant Individuals on Decision to Exhibit a Beef Project ($n = 101$)

Individual	<i>M</i>	<i>SD</i>
Parents	4.41	0.87
Siblings	3.02	1.56
Agriculture Teacher	2.71	1.40
Friends	2.61	1.27
4-H Agent	2.40	1.28
Other	1.65	1.73

Note. Summated rating scale ranged from 1-5 with 1 = Not Influential At All and 5 = Essential

Objective Two: Describe the Self-perceived Youth Leadership Life Skills Development of National Junior Angus Association Members as a Result of Involvement in the Beef Project

The composite mean YLLSDS score was $M = 73.02$, $SD = 13.77$. YLLSDS scores ranged from a low score of 40 to a maximum score of 90. Using the scale, 0 = *No Gain*, 1 = *Slight Gain*, 2 = *Moderate Gain*, and 3 = *A Lot of Gain*, individual survey items were also analyzed revealing the top three item means in terms of YLLSD gained were *show a responsible attitude* ($M = 2.71$, $SD = .51$); *can set goals* ($M = 2.64$, $SD = .63$); and *can set priorities* ($M = 2.60$, $SD = .61$). The survey statements receiving the lowest item means were *trust other people* ($M = 2.07$, $SD = .99$), *can express feelings* ($M = 2.11$, $SD = .86$), and *am sensitive to others* ($M = 2.13$, $SD = .83$) (Table 3). All individual survey items reported an average $M = 2.07$ or higher, indicating that there was at least moderate gain as a result of the beef project.

Objective Three: Determine the Relationship between the Youth Leadership Life Skills Development of National Junior Angus Association Members and the Livestock Exhibition Variables, Additional Species, Shows Per Year, Years of Involvement, and Time Spent Working with Project

The overall mean score for years of involvement in the beef project was $M = 8.31$ ($SD = 3.11$) with a range of 1-14 years. A Pearson product moment correlation coefficient, according to Miller (1998), of 0.01-0.09 represents a negligible relationship; 0.10-0.29 represents a low relationship; and 0.30-0.49 represents a moderate relationship. Years of involvement in the beef project shows a positive, but low relationship with total YLLSDS score ($r = .21$, $p < .05$).

Forty eight (47.5%) respondents reported working with their beef project either 5-8 hours or 9-12 hours per week. Hours per Week spent working with the beef project was related to YLLSDS scores ($r = .309$, $p < .01$) revealing a positive and moderate relationship.

Table 3. Ratings of Individual Life Skills items ($n = 102$)

Life Skills	<i>M</i>	<i>SD</i>
Show a responsible attitude	2.71	.51
Can set goals	2.64	.63
Can set priorities	2.60	.61
Can handle mistakes	2.56	.65
Can be flexible	2.55	.57
Can solve problems	2.55	.62
Can delegate responsibility	2.54	.73
Get along with others	2.54	.68
Have a positive concept	2.52	.62
Have good manners	2.52	.74
Can be tactful	2.50	.60
Respect others	2.50	.70
Have friendly personality	2.50	.74
Use rational thinking	2.47	.71
Can listen effectively	2.42	.70
Recognize the worth of others	2.41	.65
Can clarify my values	2.40	.72
Can use info to solve problems	2.39	.71
Can determine needs	2.38	.68
Consider input from all group members	2.37	.73
Can be honest with others	2.35	.86
Can consider alternatives	2.32	.73
Can select alternatives	2.32	.70
Consider the needs of others	2.30	.76
Created an atmosphere of acceptance	2.29	.75
Am open to change	2.19	.77
Am open minded	2.16	.80
Am sensitive to others	2.13	.83
Can express feelings	2.11	.86
Trust other people	2.07	.99

Note. Summated rating scale ranged from 0-3. No Gain = 0, Slight Gain = 1, Moderate Gain = 2, A Lot of Gain = 3

Table 4. Hours per week spent working with beef project ($n = 101$)

Hours per Week	<i>f</i>	%
1-4	13	12.9
5-8	20	19.8
9-12	28	27.7
13-16	17	16.8
17-20	15	14.9
more than 20 hours per week	8	7.9
Total	101	100.0

Forty eight (47.5%) respondents reported attending 1-4 shows per year while 26 (25.7%) respondents reported attending 5-8 shows per year (Table 5). Shows per year was positively and moderately related to YLLSD scores ($r = .376, p < .001$).

Table 5. Shows attended per year ($n = 101$)

Shows per Year	<i>f</i>	%
1-4	48	47.5
5-8	26	25.7
9-12	14	13.9
13-16	10	9.9
more than 20	3	3.0
Total	101	100.0

Over 53 percent of study participants indicated that they exhibited swine; 39.6 percent indicated exhibiting sheep; 31.6 percent indicated exhibiting horses; 21.7 percent indicated exhibiting goats; and 19.8 percent indicated exhibiting dairy (Table 6). Additional livestock species shown was not related to youth leadership life skills development in this study.

Table 6. Additional species shown by beef exhibitors ($n = 101$)

Species Shown	<i>f</i>	%
Swine	45	53.4
Sheep	33	39.6
Horse	27	31.6
Goat	17	21.7
Dairy	11	19.8

Objective Four: Determine the Relationship between the Self-perceived Youth Leadership Life Skills Development of National Junior Angus Members and their Age, Gender, FFA Participation, and 4-H Participation

There were more males ($n = 57$), who participated in this study than females ($n = 44$). The YLLSDS composite mean score for males was $M = 69.32, SD = 14.24$ and $M = 77.84, SD = 11.75$ for females (Table 7). Overall, females scored significantly, $t(98) = -3.154, p < .01$, higher than males on the YLLSDS in this study.

Table 7. YLLSDS and gender differences

Gender	<i>f</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	Sig. (2-tailed)
male	56	69.32	14.24	-3.15	96	.002
female	42	77.85	11.76			

The average age of the participants in this study was $M = 18.98, SD = .88$. The ages of the participants ranged from 18-21. Eighteen year-old participants' ($M = 73.18, SD = 13.23$) youth leadership life skills development scale scores ranges from 50 to 90 out of 90. Nineteen (M

= 76.41, $SD = 11.14$), 20 ($M = 68.82$, $SD = 16.78$), and 21 ($M = 73.66$, $SD = 11.01$) year-old participants had scores ranging from 45 to 90, 41 to 90, and 61 to 81, respectively. As revealed in Table 8, 19-year-old participants ($M = 76.41$, $SD = 11.14$) scored the highest, and the 20-year-old participants ($M = 68.82$, $SD = 16.78$) scored the lower than any of the other age groups. One-way analysis of variance procedures revealed that YLLSDS score was not dependent on age, $F(94) = 1.51$, $p > .05$.

Table 8. YLLSDS by age

Age	<i>f</i>	<i>M</i>	<i>SD</i>
18	36	73.18	13.23
19	31	76.41	11.14
20	28	68.82	16.78
21	3	73.66	11.01
YLLSDS Total	98	72.97	13.83

Years of participation in FFA ranged from 0-7, with an average $M = 3.19$, $SD = 2.22$. Years of participation in the FFA was not related to YLLSDS, $F(91) = .55$, $p > .05$. Years of participation in 4-H ranged from 0-16, with an average $M = 8.52$, $SD = 3.42$. Years of participation in 4-H and YLLSDS was also not related, $F(83) = .80$, $p > .05$.

Conclusions/Recommendations/Implications

Conclusions

The beef project experience of NJAA members was effective in developing youth leadership and life skills. YLLSDS scores were high. NJAA members scored higher on the YLLSDS than participants in similar studies ($M = 73.02$, $SD = 13.77$). Wingenbach and Kahler (1997) used the YLLSDS instrument to study the self-perceived youth leadership life skills of Iowa FFA members, and they reported an overall YLLSDS mean score of $M = 62.65$, $SD = 17.83$. In comparison, a study by Dormody and Seevers (1994) reported YLLSDS scores having a mean of $M = 64.2$, $SD = 17.7$.

National Junior Angus Association members developed the leadership life skills of *show a responsible attitude*, *can set goals*, and *can set priorities* to greatest degree of all other skills listed on the instrument. It should be noted that all individual survey items reported an average $M = 2.07$ or higher, indicating that NJAA members showed at least *Moderate Gain* in each area youth leadership life skills development as a result of their beef project exhibition experience. According to Dormody, et al. (1993), YLLSDS values from 31-60 might be determined as moderate development and scores ranging from 61 to 90 as high development.

NJAA members reported parents as an *essential* influence and siblings as *moderately influential* on their decision to participate in the beef project. There was low, but positive relationship between years of exhibiting a beef project and youth leadership life skills development, and there was a positive and moderate significant relationship between shows per year attended and youth leadership life skills development. There was also a positive and

moderate significant relationship between hours per week spent working with the beef project and youth leadership life skills development.

As with other youth leadership development studies (Ricketts, Osborne, & Rudd, 2004; Zielinski, 1999), there was a positive and moderate relationship between gender and youth leadership life skills development. In fact, females scored significantly higher on YLLSDS than males in this study. Increase in age did not render higher total YLLSDS scores, and the relationship between years of participation in FFA/4-H and youth leadership life skills development was statistically insignificant.

Discussion

Respondents reported parents as being the most influential on their decision to exhibit a beef project with an average of $M = 4.41$, $SD = .87$ using a summated rating scale ranging from 1-5 with 1 = *Not Influential At All* and 5 = *Essential*. Of the 101 respondents, 62 (61.4%) recorded parents as an *Essential* to their decision to exhibit a beef project. This finding was consistent with Gamon and Dehegedus-Hetzel's (1994) study which researched swine project skill development among Iowa 4-Hers. The researchers reported that parents played a highly influential role in the youth's decision to be involved in the swine project. Secondly, siblings was reported as *Moderately Influential* on exhibitors decision to participate in the beef project with an average of $M = 3.02$, $SD = 1.56$. The findings in this study regarding influential individuals may perhaps indicate the importance of family involvement in the beef livestock exhibition projects and subsequent youth leadership and life skill development.

All participants scored 40 and above ($M = 73.02$, $SD = 13.77$) for the possible range of 0-90 on the YLLSDS. NJAA members responses reported a YLLSDS mean value of $M = 73.02$, which is considered by Dormody, et al., (1993) as high leadership and life skills development. The high scores in leadership development may suggest that experiences in the beef project are playing a part in the youth leadership and life skills development that researchers (Brock, 1992; Fox, et al., 2003; Boyd et al., 1992) find highly important.

The top three grand item means were reported as show *a responsible attitude* ($M = 2.71$, $SD = .51$), *can set goals* ($M = 2.64$, $SD = .63$), and *can set priorities* ($M = 2.60$, $SD = .61$). The item *shows a responsible attitude* reveals that beef project exhibitors appear to gain greater responsibility through the exhibition of the beef project. This was consistent with the findings of Wingenbach and Kahler (1997) who found *show a responsible attitude* as one of the top three grand item mean scores in their study. In the Rusk, et al. (2003) study, forty-four percent of respondents indicated the use of the responsibility learned from raising livestock projects to complete homework and school projects punctually. Similarly, Boleman, et al. (2005) found *accepting responsibility* as the highest mean score value in their study of life skills gained from exhibiting livestock projects. In addition, a study conducted by Ward (1996) analyzing the influence of the 4-H Animal Science program on the development of life skills, discovered *ability to accept responsibility* as the highest scored life skill.

The low, but positive relationship between years of exhibiting beef and youth leadership life skills development is consistent with the findings of Boleman, et al. (2005) who found low,

positive relationships for all life skills surveyed and years of exhibiting livestock. The significant relationships between years of involvement in the beef project and the development of youth leadership life skills could be a result of the degree of experiences attained during years of beef exhibition. This relationship also suggests that the longer youth participates in the beef project, the more life skills they are likely to develop (Boleman et al, 2005).

There was also a positive and moderate significant relationship between hours per week spent working with the beef project and youth leadership life skills development. This finding and the positive and even stronger relationship between shows per year attended and youth leadership life skills development could be a function of experiences youth exhibitors are exposed to when participating in livestock shows. Whatever the case, this study insinuates that quite simply, the more shows a young person participates in and the more time a young person dedicates to the project, the more leadership and life skills are developed.

Females scored higher than males on the YLLSDS in the study. It seems that gender may be a variable related to youth leadership life skill development in beef project exhibitors. This is consistent with other studies (Ricketts, et al., 2004; Wingenbach & Kahler, 1997; Dormody & Seevers, 1994) that have reported females outperforming males in the leadership development. Conversely, increase in age did not render higher total YLLSDS scores. This is also supported by other researchers who studied the effect of age on youth leadership life skills development (Dormody & Seevers, 1994). It is interesting to note that years of exhibiting beef, hours per week dedicated to the project, and even shows attended was related to leadership and life skill development, but that age and years of FFA and 4-H participation was not related to leadership development for beef exhibitors. This seems to call on parents, educators, and volunteers seeking to develop youth to encourage students to start early and participate in the beef project often as quantity and quality of experiences are important to leadership development.

Recommendations

Since participants perceived that the beef project experience developed their youth leadership life skills at such high levels, and the specific leadership life skills of *show a responsible attitude*, *can set goals*, and *can set priorities* were revealed as being developed to the greatest extent, agricultural education and extension professionals ought to heighten recruitment efforts to increase the level of participation in beef projects.

Findings from this study reported all YLLSDS items as increasing youth leadership life skills development at least moderately as a result of participation in the beef project. Thus, NJAA members are benefiting from exhibiting beef projects and these skills are enabling them to become both productive leaders and members of society. Beef breed organizations (i.e. American Angus Association), county extension agents, and agriculture teachers should consider recruitment strategies and opportunities for growth in their present livestock program to enable more youth to benefit from youth leadership development as result of livestock exhibition.

In this study, a positive and low relationship existed between years of exhibiting a beef project and youth leadership life skills development. Agriculture educators, extension professionals, and parents of livestock exhibitors should seek and encourage longevity among

participants in the beef project to ensure greater leadership life skills development. Because of the relationship between shows per year attended and youth leadership life skills development, parents and agriculture educators ought to consider providing more opportunities during the show season for beef project exhibition. Parents and agriculture extension professionals should also be aware of the possibility that the more hours per week spent working with a beef project, the greater chance of leadership life skills development. This awareness should encourage youth exhibitors to invest greater amounts of time in their livestock project.

Again, females in this study scored higher on YLLSDS than males. From the findings of this study, it may be that female livestock exhibitors develop leadership life skills just as well or better than male livestock exhibitors. Consequently, livestock exhibition professionals, agriculture educators, and parents should be careful to avoid gender-bias when promoting livestock exhibition projects. Lastly, FFA and 4-H members may have developed leadership and life skills in other ways other than through the exhibition of livestock. Future research should determine why FFA and 4-H participation was not necessarily related to YLLSD.

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