Youth livestock programs provide intangible benefits through life skill development

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Since the early 1900s, livestock shows have been held throughout the United States for adults and youth to compare the quality of their animals. These shows have been held at the local, county, district, state, regional, and national level. In the early days, one of the most famous shows was the “International” held at the stockyards in Chicago, IL. Exhibiting a champion animal at the International was considered the pinnacle of achievements in the livestock industry. The former Dr. O’Dell G. Daniel said, “Junior Livestock Projects are educational. They are the greatest teaching project known to man” (Daniel, 1986). If you ask youth what they gain from raising and showing animals, they will respond with a laundry list of what are now referred to as “life skills” (Hendricks, 1998). The Targeting Life Skills wheel was developed by P.A. Hendricks at Iowa State University and published in 1998. Working from the Head, Heart, Hands, and Health included in the 4-H motto, Hendricks listed 35 life skills on the “Targeting Life Skills” wheel (Figure 1). Many of these “life skills” can be attributed to the virtues of raising and showing livestock projects. Regardless of whether the youth is a member of 4-H, FFA or simply raising animals on their family’s farm or ranch, the valuable skills developed from raising animal projects are numerous.

In recent years, we have seen an increase in the number of children with special needs participating in youth livestock shows. We attribute part of this increase to Agricultural Engineers who have modified wheelchairs to include a head

Implications

• Raising and showing livestock results in the acquisition of numerous life skills by youth. Some of these skills include responsibility, time management, and animal husbandry skills like feeding, breeding, vaccinating, treating animals for sickness, treating animals for lameness, and training animals for the showering.
• Youth who show animals also learn about ownership deadlines, entry deadlines, making travel plans, and teamwork learned from working together as a family.
• Youth who compete on judging teams learn to evaluate dairy cattle, horses, meat, or livestock such as beef cattle, goats, sheep, and swine.
• Youth who compete on dairy cattle, horse, meat, or livestock judging teams learn leadership development skills like critical thinking, decision making, and public speaking.
• The leadership skills gained by youth who compete on judging teams will give these youth an advantage later in life, especially when they are interviewing for jobs.

long as there are youngsters who have parents and grandparents. Let’s not confuse the issue by saying we have steer shows, barrow shows, lambs shows, etc. We have kid shows where it is necessary to have an animal to be admitted through the gate” (Daniel, 1986). For youth exhibitors, the “rewards” for raising and showing animals are more than monetary awards. The former Dr. O’Dell G. Daniel said, “Junior Livestock Projects are educational. They are the greatest teaching project known to man” (Daniel, 1986). If you ask youth what they gain from raising and showing animals, they will respond with a laundry list of what are now referred to as “life skills” (Hendricks, 1998). The Targeting Life Skills wheel was developed by P.A. Hendricks at Iowa State University and published in 1998. Working from the Head, Heart, Hands, and Health included in the 4-H motto, Hendricks listed 35 life skills on the “Targeting Life Skills” wheel (Figure 1). Many of these “life skills” can be attributed to the virtues of raising and showing livestock projects. Regardless of whether the youth is a member of 4-H, FFA or simply raising animals on their family’s farm or ranch, the valuable skills developed from raising animal projects are numerous.

In addition to learning life skills, youth who raise market animals are learning how to raise food that is wholesome and nutritious. Youth who excel at raising market animals are referred to as “good feeders” because of the skills they acquire in properly feeding and raising an animal or animals to their ideal market weight. These youth develop tremendous responsibility as they learn their animal is part of the food chain and will eventually become part of the food supply. Youth who raise breeding animals also learn tremendous responsibility as they are the livestock breeders of the future. They must learn how to properly raise their animals until the animal(s) reaches puberty. They must then learn the best method for getting their animal pregnant, so the animal can become part of “the circle of life.” Youth who raise breeding or market animals are critically important to the future of the livestock industry. The skills they learn at a young age will pay dividends for many years to come.
piece for sheep and goats that is attachment on the side of the wheel chair and allows a youth exhibitor to bring their sheep or goat to the showering and compete side by side with their fellow exhibitors. Wheelchairs have also been modified to allow swine exhibitors with special needs to compete in the show ring with their contemporaries. We applaud these changes that have increased the number of youth who are able benefit from raising and showing animal projects.

In addition to livestock shows, judging contests (dairy, horses, livestock and meat) for 4-H, FFA and collegiate youth have been held since the early 1900s. In the United States, judging contests have served as an effective means of measuring a team’s or individual’s ability to evaluate dairy cattle, horses, livestock, and meat. Judging competitions are enjoyable as well as educational. They evaluate contestants’ ability to make logical decisions, in a fixed amount of time, with a given scenario and a selected group of animals or cuts of meat. First, students must learn to evaluate the desirable and undesirable points of conformation and performance of four animals, four carcasses, or four cuts of meat per class. The student must utilize his/her senses to perceive the differences in structural correctness, muscularity, and fat deposition. After weighing the placing factors, the student must persuasively present (in oral or written form) a set of reasons explaining the factors that influenced their class placing. Points are awarded to the contestant for accuracy, organization, and speaking/writing ability. A judging contest, therefore, builds character and instills self-confidence. Both traits are important in helping students develop leadership potential, a basic long-term goal of the activity.

Coaches across the country invest a large amount of time each year developing their students’ general livestock and meat knowledge and leadership potential with extensive decision-making and speaking/writing experiences. Many hours of practice are required to teach students to consistently and correctly place animals, carcasses, or cuts of meat in the same order as the official judges, as well as to deliver a persuasive, truthful, and organized set of reasons.

Boys and girls and young men and women are entitled to the kind of training and experience that will enable them to enjoy life to the fullest and to meet with eagerness, assurance, and satisfaction their social and economic responsibilities of both the present and the future. The training and experience required for living this full life through youth and adulthood may be secured in large measure in 4-H, FFA, and FHA activities and the necessary supporting subject matter instruction (Smith and Kirkpatrick, 1990, p. 7). The initial purpose of the livestock judging activity was to encourage the critical evaluation of livestock for the improvement of beef cattle, swine, and sheep. The activity is centered around the evaluation of a class of four animals and the determination of a placing, using a standard set forth by livestock experts from the university and the livestock industry. Livestock are assessed on their value as either a market or breeding animal. The evaluation of livestock exercises the participant’s problem solving and decision-making skills to determine the most logical order in which the animals should be placed.

McCann and McCann (1992) said the livestock judging activity provides youth who have an interest in the livestock industry with the opportunity to develop necessary life skills for
their futures and their careers. They also stated that through the training process before competition, livestock judging participants develop the most skills (compared with the amount of skills they learn during the actual judging competition). They learn to develop a thought process through the assimilation of concepts identified with proper evaluation practices. Through active preparation for the contest situation, called “work-out” sessions, participants become associated with and learn to adjust to pressure situations (Figures 2–6; Pictures taken during the 2000 Indiana State 4-H/FFA Livestock Judging Contest at Purdue University).

An important component of the activity is the participant’s delivery of a set of oral reasons, which describes the contestant’s thought process in placing the livestock and defends their decision in a structured manner that is logical and professional. In the early years of the judging program, reasons were written by the participant to justify and defend his or her placing. Through the years, reasons have evolved into an oral presentation to an official judge. Oral reasons allow participants to become more proficient in defending their decisions using public speaking skills (Purdue University Cooperative Extension Service, 1998).

Development of important life skills such as communication, problem solving, and understanding one’s self has been taught through experiential learning throughout the history of 4-H youth programming (Boyd et al., 1992). Throughout the development of the 4-H Livestock Judging Program, residual benefits, such as life skills development, have enhanced the validity of maintaining the activity. Livestock judging has been associated with developing a variety of employer preferred life skills in its participants (Smith, 1989). Judging livestock uses skills which involve the comparison of differences (Hunsley and Beeson, 1988).

Livestock judging participants learn to evaluate the desirable and undesirable points of conformation in a class of four animals (McCann, 1988). When one learns the process of evaluation through the livestock judging activity, these same skills can be integrated into other real-life situations. The judging activity is a widely practiced art in the livestock industry because success in business depends on the producer’s ability to select animals that are of correct type and have economic usefulness to both the producer and the consumer (Eversole, 1990). The livestock judging contestant must be able to visually perceive differences in muscle, fat, and structural correctness (McCann, 1988). Participation on livestock judging teams is credited with improved critical thinking skills; improved organization, delivery, and accuracy of written and oral communication processes” (p. 30).

In 2000, Mr. Chad Martin and Dr. Clint Rusk conducted a study to determine the impact of the Indiana 4-H Livestock Judging Program from a retrospective account of former participants. The participants in the study were to indicate their demographic information such as age, gender, college education, gross annual income, if they had been a 4-H volunteer, current career status, if their children have been involved in the 4-H Livestock Judging Program, and livestock judging and coaching experience. Participants were also to rate the influence the 4-H livestock judging activity had on the development of specified life skills. The range of the scale was from, “not influential at all,” to “almost essential to my ultimate development of that attribute.” The life skills indicated are often associated with workforce preparedness (SCANS, 1991). Participants were asked to give qualitative accounts as to how the Indiana 4-H Livestock Judging Program influenced their personal growth.

Fifty percent of respondents participated in the Indiana 4-H Livestock Judging Program as a contestant between 1986 and 1999. Approximately 60% of respondents were between the ages of 26 and 40. The reported distribution show that over 90% (N = 172) of the former participants pursued an education beyond the secondary level. Just over half (55.6%) of the respondents indicated they attended Purdue University. Those who attended a junior college before going to Purdue University were only 2.3% of the population. Just over 10% of respondents stated they attended a junior college known for its livestock judging team excellence, before attending another agricultural university besides Purdue University. Just over half (52.8%) of respondents indicated a bachelor’s degree was the
highest level of education they had received. Approximately one-fourth obtained a master’s degree, whereas 1% received a PhD, 1% earned a Doctor of Veterinary Medicine, and 0.5% received an MBA. Of the respondents with at least some form of postsecondary education, 83.6% received a bachelor’s degree or higher. Over half (55.4%) of respondents stated their participation in the Indiana 4-H Livestock Judging Program affected their choice of colleges. 52.7% of respondents indicated they had judged a county fair livestock show after completing the Indiana 4-H Program. Approximately one-fourth, or 23.7%, of the respondents had judged a state livestock show, 15% had experience judging a regional livestock show, one-tenth had judged a national livestock show, and 2% had served as an international livestock judge.

Respondents were asked to indicate the level of influence the 4-H Livestock Judging Program had on developing specific life skills associated with workforce preparedness. These skills included the following: oral communication skills using proper

Figure 3. Judging heifers.

Figure 4. Judging Suffolk ewes.
terminology, self-confidence, problem-solving ability, decision making, ability to verbally defend a decision with accuracy, self-motivation, organizational skills, self-discipline, teamwork, and livestock industry knowledge. Former participants were asked to rank each life skill according to the level of influence the 4-H Livestock Judging Program had on developing that skill, using the following scale: (1) not influential at all, (2) mildly influential, (3) moderately influential, (4) highly influential, and (5) almost essential to my ultimate development of that attribute. The 4-H livestock judging activity was highly influential in the development of the following skills: the ability to verbally defend a decision, livestock industry knowledge, oral communication, and decision making. All other life skills were determined to be moderately influential (Table 1).

Former participants in the Indiana 4-H Livestock Judging Program were asked an open-ended question regarding their accounts of how the judging program influenced their personal growth. Over 75% (132 of 171) of respondents indicated...
participation in the Indiana 4-H Livestock Judging Program influenced their personal life in a positive manner. Examples of these responses include the following: “The Indiana Livestock Judging Program was the single most important experience of my life. In terms of personal growth, the judging program opened doors and led me down a very successful path. I know I wouldn’t be where I am today without it.” Another respondent stated: “The 4-H livestock program helped develop skills I will carry with me for the rest of my life. It opened doors and introduced me to people in the livestock industry that could only be obtained through my judging career.”

The responses that identified preparation for the workforce as being positively influenced by participation in the Indiana 4-H Livestock Judging Program totaled 131 or 76.6% of those who responded. Examples of these responses include the following: “It helped my communication skills which are essential in day-to-day operations in my career. It became the foundation of all other skills needed in life.” “I am responsible for running meetings and supervising people. My judging experience taught me to speak in public, while at the same time evaluate situations.” “The program has given me a sense of self-confidence and has taught me how to voice my opinion. In my job, I communicate with all types of people, from high government officials to farmers. Being involved in judging programs helped.” “Easily the best experience and preparation for my future. I learned to think on my feet, under pressure, and I learned to win. Furthermore, I learned how to justify my reasoning and decisions from the thousands of hours I spent giving oral reasons.” “Through judging, I learned to make decisions, to evaluate differences, and to defend my positions. Giving oral reasons taught me self-confidence, presentation skills, and improved my communication ability.” “The Livestock Judging Program helped facilitate my ability to make decisions efficiently and to verbally defend those decisions. These experiences laid the groundwork for confidently dealing with customers in our business.” “Livestock judging has impacted my personal growth by giving me more confidence in my communication skills. I praise the Lord for this, as He called me to preach and teach the Bible, which is deserving of the purest articulation.”

A total of 39 respondents (22.8%) reported the personal contacts and friendships gained from participating in the 4-H Livestock Judging Program were another important value. “My involvement in 4-H and Collegiate judging activities created lifelong contacts within the pork industry.” “It was a great experience to go and meet people around Indiana.” “It gave me the opportunity to interact with a wonderful group of young people.” “4-H livestock judging was a tremendous positive influence in my youth and into my adult life. I received many great rewards, but most importantly, met many great friends through my activities and involvement in livestock judging. Now, I feel it is more important to give back and volunteer my time and help other people.” “I gained the respect, friendship, and collective knowledge of a number of people around the state.” “I think it made me a more well-rounded individual, not only in terms of livestock evaluation, but also in terms of public speaking. The greatest influence in my opinion was the opportunity to have contact with some of the most influential people in the livestock industry; not to mention all of the friends I met with a common interest.”

Sixteen respondents said development of livestock knowledge was a positive influence of the Indiana 4-H Livestock Judging Program. Following are two representative responses: “The program has helped me have better judgement and make better decisions to help improve my cow/calf operation.” “As a seedstock swine producer, being able to evaluate swine is extremely important to my success.”

Twelve respondents, or 7.0% of those responding, stated the Indiana 4-H Livestock Judging Program was influential in helping them achieve academic success. Example responses in this category include the following: “The 4-H Livestock Judging Program kept me in school and helped me in my current occupation.” “The 4-H Livestock Judging Program and 4-H in general were the main reasons I chose to attend Purdue University and study Agriculture.” “Being on the livestock judging team helped me become more responsible. I had to get my schoolwork done so I could stay on the team.” “It helped me to think on my feet and articulate my thoughts verbally.” “The 4-H Livestock Judging Program allowed me to make better and quicker decisions by forcing me to think on my feet.”

Table 2 reflects the frequency and percentages of responses in each category of qualitative responses to the question of how the Indiana 4-H Livestock Judging Program influenced the personal growth of former participants. Almost 99% of respondents indicated the Indiana 4-H Livestock Judging Program had a positive influence on their personal growth. Three-quarters of respondents included remarks stating the Indiana 4-H Livestock Judging Program positively influenced their personal life and their preparation for the workforce.

### Table 1. Distribution of former participants in the Indiana 4-H Livestock Judging Program: rating the influence the program had on developing specific life skills associated with workforce preparedness

| Life skill                          | N  | Mean | SD  | Frequency of responses |
|------------------------------------|----|------|-----|------------------------|
|                                   |    |      |     | 1  | 2  | 3  | 4  | 5  |
| Verbally defend a decision         | 185| 4.20 | 0.81| 2  | 6  | 16 | 90 | 70 |
| Livestock industry knowledge       | 185| 4.15 | 0.86| 2  | 6  | 26 | 80 | 71 |
| Oral communication                 | 185| 4.07 | 0.81| 2  | 6  | 25 | 97 | 55 |
| Decision making                    | 185| 4.04 | 0.80| 3  | 6  | 20 | 108| 48 |
| Self-confidence                    | 185| 3.93 | 0.80| 3  | 8  | 25 | 97 | 55 |
| Problem solving                    | 185| 3.68 | 0.90| 6  | 11 | 44 | 99 | 25 |
| Teamwork                           | 185| 3.56 | 0.97| 5  | 22 | 49 | 83 | 26 |
| Self-motivation                    | 185| 3.46 | 1.00| 10 | 16 | 61 | 75 | 25 |
| Self-discipline                    | 185| 3.45 | 0.98| 9  | 18 | 61 | 76 | 21 |
| Organizational skills              | 185| 3.35 | 0.95| 8  | 20 | 75 | 64 | 18 |

*Scale: 1 = not influential at all, 2 = mildly influential, 3 = moderately influential, 4 = highly influential, 5 = almost essential to my ultimate development of this attribute.*
Table 2. Distribution of qualitative responses from former participants in the Indiana 4-H Livestock Judging Program on the ways the program influenced their personal growth

| Response category                        | N  | Percentage |
|------------------------------------------|----|------------|
| Positive influence                      | 169| 98.8       |
| Personal life influence                 | 132| 77.2       |
| Workforce preparation influence         | 131| 76.6       |
| Personal contact influence              | 39 | 22.8       |
| Livestock knowledge influence           | 16 | 9.4        |
| Academic success influence              | 12 | 7.0        |
| Think on your feet influence            | 8  | 4.7        |
| Negative influence                      | 2  | 1.2        |

*One hundred seventy-one respondents gave qualitative comments.*

Conclusions

The purpose of this study was to determine the impact of the Indiana 4-H Livestock Judging Program on past participants’ development of life skills associated with workforce preparedness. The first objective of the study was to describe the demographics of former participants in the Indiana 4-H Livestock Judging Program. The criteria selected to determine the demographics were age, gender, college education information, income, occupation, history of 4-H volunteer involvement, livestock judging team coaching experience, and level of livestock show judging experience. The typical former participant in the Indiana 4-H Livestock Judging Program was a 31- to 40-yr-old male with a bachelor’s degree or higher from Purdue University, who indicated the program affected their choice of colleges. The typical former participant was employed in the agriculture industry, earned $45,001–$55,000 annually, had experience volunteering in 4-H programs, and had judged at least one county livestock show. Former participants with children have involved their boys and girls in the 4-H Livestock Judging Program. Most respondents received a bachelor’s degree from Purdue University. Those who participate may be more apt to attend college because of their scholastic aptitude. The agriculture industry is developing and evolving at a fast pace. It is important that 4-H programming offer opportunities for youth to become more aware of the industry. As indicated by this study, the typical former participant of the 4-H Livestock Judging Program is employed in agriculture and earns between $45,001 and $55,000. Former participants may have anticipated an agriculture career before their participation in livestock judging, therefore, further developing their skills and knowledge. As agriculture is becoming more diverse, with an increasing pool of employees from nonagricultural backgrounds, 4-H programs like livestock judging provide an opportunity for people to become more accustomed to the fundamentals of agriculture and the ability to become more knowledgeable about livestock, without the requirement of growing up on a farm. Because 4-H programs rely heavily on volunteerism to be successful, it is encouraging to see most former participants with experience as a 4-H volunteer in one or more areas. This indicates that the 4-H livestock judging activity was valuable enough to its former participants to encourage them to become active in the program after completing judging team participation. Over half of the participants in this study, with children of eligible age, have involved their boys and girls in the Indiana 4-H Livestock Judging Program. Those who participated in livestock judging as a youth and then provided the same opportunity for their children have favorably assessed the value of the experience.

Several participants in this study indicated that they had experience as a livestock judging coach at various levels. Coaching a livestock judging team allows former participants to pass along their acquired knowledge to those who are coming through the ranks. Those who competed on a junior college livestock judging team may have had an opportunity to assist their collegiate coach following their year of eligibility. Animal Science graduate students have an opportunity to coach livestock judging teams at the collegiate level following their year of eligibility. Most of the former participants in the Indiana 4-H Livestock Judging Program have judged a county livestock show. This indicates that the program provides a proper foundation for those who wish to continue in a livestock judging career. The program also inspires its participants to utilize the knowledge they gain, beyond their 4-H livestock judging experience.

The second objective of this study was to collect qualitative perspectives of how the Indiana 4-H Livestock Judging Program influenced the personal growth of former participants. There were several responses showing a high level of favor toward the program in more than one manner. These responses showed the 4-H Livestock Judging Program developed workforce preparation skills as well as social, academic, personal, and livestock skills. Several individuals indicated the program was valuable in developing their communication skills. Because of the participants’ experience in oral reasons, they also developed the confidence to speak publicly. Former participants indicated they learned how to make proper decisions. A phrase commonly made by respondents to describe their 4-H livestock judging team experience was “the program helped me learn to think on my feet.” This concurs with the SCANS (1991) report which specifically stated one of the important skills employers look for in their employees, is the ability to stand on their own two feet and make decisions. The third objective was to determine the influence of the Indiana 4-H Livestock Judging Program on developing necessary life skills. The typical respondent indicated the 4-H Livestock Judging Program was moderately to highly influential in developing specific life skills associated with workforce preparation. The ability to verbally defend a decision with accuracy was the skill most influenced by participation in the program. This concurs with McCann’s (1992) findings on the development of necessary life skills. The ability to verbally defend a decision is developed by the exercise of presenting oral reasons multiple times to effectively describe the thought process used by the participant in placing the class of livestock. Those who excel in oral reasons learn to more effectively use the English language to get their point across.
The fact several former participants have established a career because of skill acquired as a result of participation in the program. Participants are learning how to identify important aspects of the livestock industry in order to become more aware of the business. Oral communication is used daily and is a necessary skill in the workforce (SCANS, 1991). Through oral reasons competition, students are given the opportunity to develop their own unique communication style. The successful oral reasons presenter uses proper pronunciation and articulation to portray their thoughts. Self-confidence is essential to successfully present a set of oral reasons. Oral communication and self-confidence are “selling one’s self” in the workforce. The ability to make good decisions relies on the opportunity to practice developing thought processes. Participants in the 4-H Livestock Judging Program indicated that the program was highly influential in the development of this important life skill. By repeatedly making decisions in the livestock judging activity, 4-H youth are getting a head start in developing decision-making skills. These skills are not only essential in the workforce, but they are also an important tool for generating decisions in the adult life. Former participants will be better able to communicate, have more self-confidence, and increase their problem-solving ability as a result of participation in the 4-H Livestock Judging Program. Without question, the Indiana 4-H Livestock Judging Program has been beneficial in the development of important life skills in past participants and should continue to be highly influential in the new era of 4-H Youth Development programming.

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