Livestock Evaluation Confidence and Training Interests of Youth Contestants

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Background of the Study

- Early judging research focused on individuals' efficacy in grain judging and ability to evaluate yields (Hughes, 1917; Wallace, 1923).
- Later and recent research has focused on horse and livestock judging contestants’
  - development of psychological and assessment skills
  - personality types
  - coaching influence
  - life-skill development

(Boyd et al., 1992; McCann et al., 1988, 1991; McCann and McCann, 1992; Nash and Sant, 2005; Phelps and Shanteau, 1978; Rusk et al., 2002; Shanteau, 1978)

Conceptual Framework

- Livestock evaluation is a learned skill set. Therefore, training and instruction has a clear impact on success (Shanteau, 1978).
- Human behavior is developed through the observation of others (Bandura, 1977).
- “A strong sense of efficacy enhances personal accomplishment in many ways. People with high efficacy approach difficult tasks as challenges to be mastered rather than as threats to be avoided.” (Bandura, 1993)
- People with low efficacy are less motivated and reluctant to perform because they think they have no chance at succeeding (Bandura, 1993).
- Aside from skill set, successful livestock judges possess the ability to maintain and control concentration, confidence, and motivation (Meyers et al., 2015).

Problem & Purpose

- A need to understand:
  - in which aspects of livestock evaluation youth feel least confident in
  - what training methods are currently used
  - what type of training programs are of most interest to youth
- Information from this study allows universities to meet the needs and expectations of participants through relevant and effective educational content and platforms.

Objectives

- Describe the selected characteristics (age, sex, state of residence, size of hometown, organizational affiliation, ownership of livestock, and interest in collegiate judging) of participants' of the 2016 OSU ANSI Big 3 Field Days.
- Identify participants' self-reported confidence level in judging livestock (sheep, cattle, swine, and goats).
- Identify participants' most frequently used training methods.
- Identify types of training opportunities of interest to youth.

Methodology

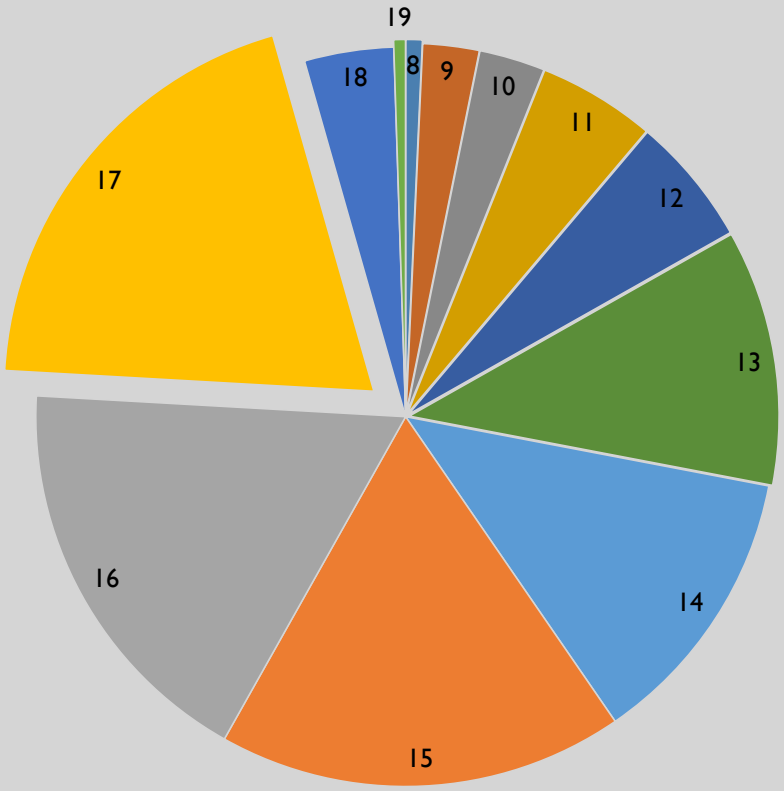
- A survey design method with a researcher-developed instrument was used to gain an understanding of self-reported confidence levels youth have in evaluating livestock.
- To evaluate face validity, a pilot test was conducted using a similar demographic group at the 2016 OSU Livestock Judging Camp.
- A Cronbach's alpha was calculated as the reliability measure for each construct:
    - sheep (6 items; *a* = .804)
    - cattle (6 items; *a* = .910)
    - swine (6 items; .871)
    - goats (6 items; *a* = .893)
    - tools (7 items; *a* = .859)

Methodology

- OSU IRB analyzed the application; corrections were made, and the study was approved.
- The population (*N* = 1,501) included all 4-H- and FFA-affiliated youth livestock judging contestants present on the last day of the 2016 OSU ANSI Big 3 Field Days (July 21, 2016).

Findings: Demographics

- 51.8% male
- 73.6% from Oklahoma, 6.7% Texas, 3.1% Arkansas
  - other states represented: California, Florida, Georgia, Maryland, and Oregon
- 72.1% from rural area
- 41.6% involved with 4-H
- 71.4% involved with FFA
- 93.7% own livestock
- 74.3% interested in judging livestock at the collegiate level



Age of respondents

Findings:
Confidence Levels in Evaluating Sheep (*n* = 430)

	No Response		Severely lacking confidence		Moderately lacking confidence		Slightly lacking confidence		Slightly confident		Moderately confident		Extremely confident		Totals	
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
Identifying structural correctness	5	1.2	18	4.2	31	7.2	67	15.6	86	20.0	**163**	**37.9**	60	14.0	430	100.0
Visualizing proper balance	9	2.1	12	2.8	33	7.7	60	14.0	115	26.7	**131**	**30.5**	70	16.3	430	100.0
Evaluating appropriate muscle definition	11	2.6	15	3.5	42	9.8	46	10.7	84	19.5	**143**	**33.3**	89	20.7	430	100.0
Estimating appropriate fat thickness in market lambs	9	2.1	33	7.7	50	11.6	73	17.0	101	23.5	**111**	**25.8**	53	12.3	430	100.0
Assessing volume in breeding sheep	12	2.8	29	6.7	49	11.4	63	14.7	82	19.1	**115**	**26.7**	80	18.6	430	100.0
Examining growth	13	3.0	29	6.7	43	10.0	57	13.3	106	24.7	**108**	**25.1**	74	17.2	430	100.0

Findings:
Confidence Levels in Evaluating Cattle (*n* = 430)

	No Response		Severely lacking confidence		Moderately lacking confidence		Slightly lacking confidence		Slightly confident		Moderately confident		Extremely confident		Totals	
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
Identifying structural correctness	6	1.4	21	4.9	28	6.5	48	11.2	77	17.9	**138**	**32.1**	112	26.0	430	100.0
Visualizing proper balance	9	2.1	18	4.2	34	7.9	40	9.3	92	21.4	**130**	**30.2**	107	24.9	430	100.0
Evaluating appropriate muscle definition	14	3.3	18	4.2	22	5.1	41	9.5	82	19.1	**144**	**33.5**	109	25.3	430	100.0
Estimating appropriate fat thickness in market lambs	11	2.6	17	4.0	31	7.2	45	10.5	**109**	**25.3**	108	25.1	**109**	**25.3**	430	100.0
Assessing volume in breeding sheep	14	3.3	14	3.5	38	8.8	37	8.6	80	18.6	114	26.5	**132**	**30.7**	430	100.0
Examining growth	16	3.7	17	4.0	34	7.9	42	9.8	88	20.5	115	26.7	**118**	**27.4**	430	100.0

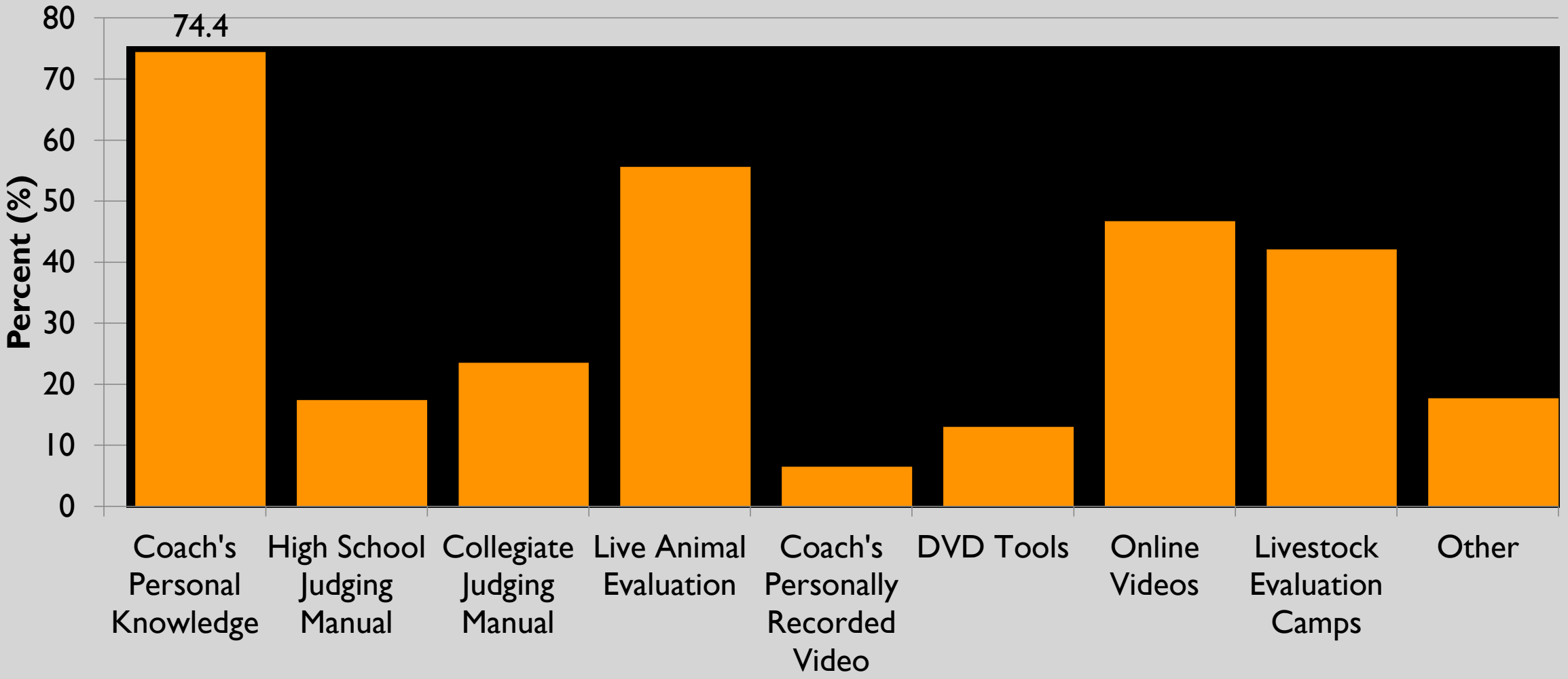
Findings:
Confidence Levels in Evaluating Swine (*n* = 430)

	No Response		Severely lacking confidence		Moderately lacking confidence		Slightly lacking confidence		Slightly confident		Moderately confident		Extremely confident		Totals	
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
Identifying structural correctness	7	1.6	24	5.6	26	6.0	49	11.4	70	16.3	**144**	**33.5**	110	25.6	430	100.0
Visualizing proper balance	9	2.1	18	4.2	31	7.2	50	11.6	74	17.2	**145**	**33.7**	103	24.0	430	100.0
Evaluating appropriate muscle definition	10	2.3	22	5.1	20	4.7	36	8.4	74	17.2	126	29.3	**142**	**33.0**	430	100.0
Estimating appropriate fat thickness in market lambs	9	2.1	31	7.2	19	4.4	44	10.2	81	18.8	**135**	**31.4**	111	25.8	430	100.0
Assessing volume in breeding sheep	11	2.6	26	6.0	17	4.0	47	10.9	87	20.2	120	27.9	**122**	**28.4**	430	100.0
Examining growth	14	3.3	27	6.3	25	5.8	50	11.6	84	19.5	**133**	**30.9**	97	22.6	430	100.0

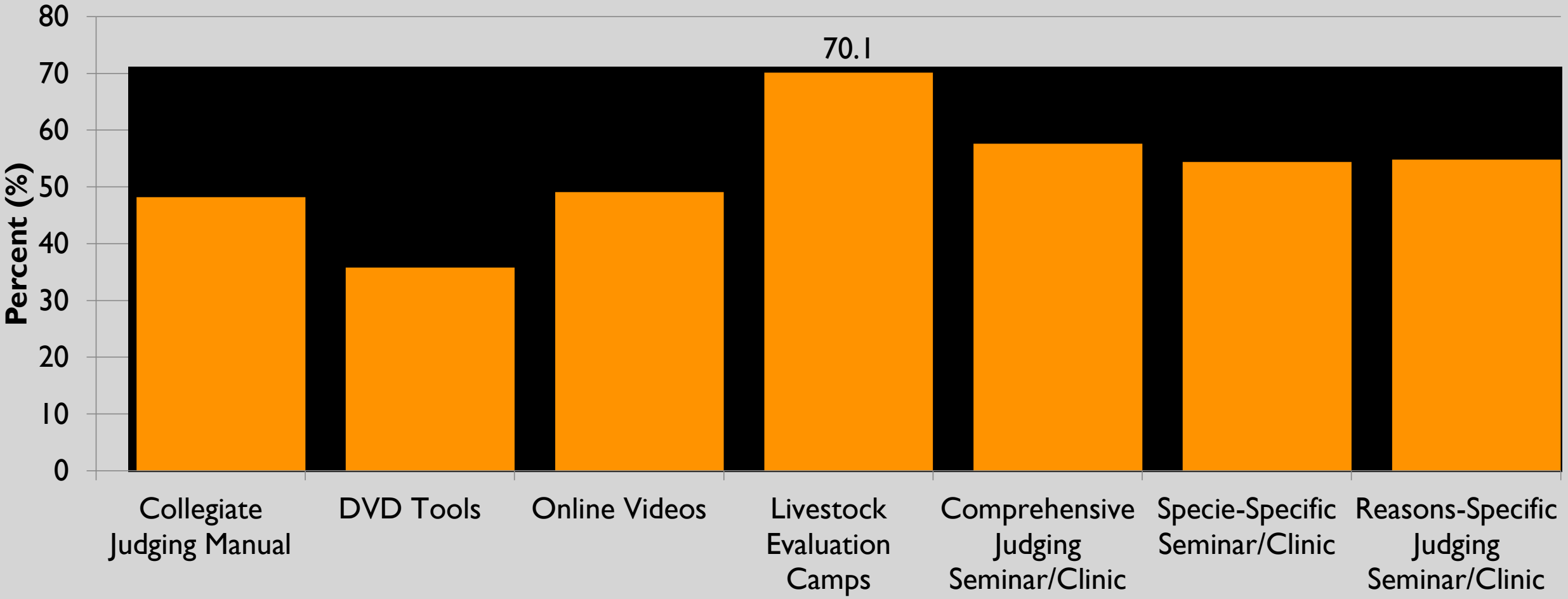
Findings:
Confidence Levels in Evaluating Goats (*n* = 430)

	No Response		Severely lacking confidence		Moderately lacking confidence		Slightly lacking confidence		Slightly confident		Moderately confident		Extremely confident		Totals	
	f	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
Identifying structural correctness	7	1.6	37	8.6	45	10.5	61	14.2	**117**	**27.2**	100	23.3	63	14.7	430	100.0
Visualizing proper balance	11	2.6	28	6.5	39	9.1	66	15.3	101	23.5	**117**	**27.2**	68	15.8	430	100.0
Evaluating appropriate muscle definition	10	2.3	31	7.2	39	9.1	53	12.3	96	22.3	**127**	**29.5**	74	17.2	430	100.0
Estimating appropriate fat thickness in market lambs	11	2.6	37	8.6	53	12.3	63	14.7	**109**	**25.3**	95	22.1	62	14.4	430	100.0
Assessing volume in breeding sheep	13	3.0	36	8.4	37	8.6	58	13.5	92	21.4	**102**	**23.7**	92	21.4	430	100.0
Examining growth	16	3.7	36	8.4	34	7.9	59	13.7	**106**	**24.7**	99	23.0	80	18.6	430	100.0

Findings:
Frequently Used Training Methods



Findings:
Training Methods of Interest



Percent respondents were very or extremely interested in these training methods.

Conclusions

- Typical respondent:
  - 15- to 17-year-old male from rural Oklahoma who is involved in FFA, owns livestock, and is interested in judging at the collegiate level
- Respondents are
  - slightly to moderately confident in evaluating sheep and goats
  - moderately to extremely confident in evaluating swine and cattle
- In terms of species, respondents are least confident in evaluating goats.
- In terms of livestock characteristics, respondents are
  - least confident in examining growth in livestock and estimating appropriate fat thickness in market animals
  - most confident in assessing volume in breeding animals

Conclusions

- The most frequently used training methods used by youth are their coach's personal knowledge and live animal evaluation.
- For additional training, respondents were very interested in:
  - livestock evaluation camps
  - comprehensive judging seminar/clinic
  - reason-specific judging seminar/clinic
  - specie-specific judging clinics
- Respondents are interested in improving their abilities to be competitive at the next level (junior or senior college).

Recommendations

- Animal science departments should provide training opportunities to improve youth contestants' livestock evaluation abilities through programs focusing on:
  - examining growth in livestock
  - estimating fat thickness in market animals
  - using evaluation techniques specific to sheep and goats
- These departments should offer these topics specifically through:
  - livestock evaluation camps
  - comprehensive judging seminar/clinic
  - reason-specific judging seminar/clinic
  - specie-specific judging clinics

Recommendations

- Considering a majority of respondents rely heavily on coaches' knowledge, universities should offer training for coaches.
- Future researchers should consider:
  - incorporating a method to compare self-reported confidence levels to respondents' judging contest results
  - extending the study to other university programs within other regions of the country
  - incorporating a pre- and post-test (before and after a training event) to assess improvement in confidence from training

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Questions/Discussion