

LEADERSHIP SKILLS EMPLOYED BY 4-H YOUTH DEVELOPMENT EXTENSION EDUCATORS

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This study investigated leadership practices being employed by county 4-H educators in Pennsylvania. Findings included no significant difference between scores of educators and supervisors for transactional skills. However, there was a significant difference in scores for transformational skills, leadership outcomes, and each LPI construct. Recommendations include staff development opportunities addressing the gaps in skills.

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Leadership Skills Employed by 4-H Youth Development Extension Educators

Introduction/Theoretical Framework

Interest in the concept of leadership has been steadily increasing for scholars, public and private organizations, and managers since the late 20th century (Nahavandi, 2003 & Dubrin, 2001). Kouzes and Posner (1987) note that leadership is an observable, learnable set of practices. Cacioppe (1998) demonstrated that there is a need for leadership and positive leadership skills in all organizations not limited to the corporate world. Increasingly, individuals in all fields need greater levels of positive leadership skills to be successful.

In the past 15 years, there have been major changes to Cooperative Extension. Leadership philosophies taught in the programs of the past no longer address the complex problems found in the communities and organizations of today (Sandman & Vandenberg, 1995). The management and leadership skills formerly found at the top of the most wanted list, no longer apply, and new leadership skills are needed for success (Sandman & Vandenberg, 1995).

A significant component of the Cooperative Extension System is the investment in youth development through the 4-H program. The efforts of 4-H are guided by Pennsylvania's 79 Extension educators focusing on 4-H Youth Development. The 4-H educator's job is to facilitate, coordinate, and lead volunteers who work directly with over 260,000 youth in rural, urban, and suburban Pennsylvania (The College of Agricultural Sciences, 2004). 4-H Youth Development educators need to properly meet the needs of young people, their parents, and the volunteer leaders within their programs.

While investigating the leadership practices of Extension educators, it is important to also examine the beliefs held by their supervisors. This assessment is critical so that any gaps between the educators' perception of skills being practiced, the supervisors' observation of skills being utilized, and more effective leadership skills can be identified and addressed through staff development opportunities. Feife and Schyns (2004) conducted a study that included 213 participants, who were simultaneously leaders and subordinates. This study found that supervisors found their subordinates to be more successful leaders to others when the subordinates practiced similar leadership skills to their own. These researchers would suggest that Extension educators who have mastered various leadership practices are more likely to have a greater impact on citizens in their communities. With the knowledge of how many people our Extension educators reach each year, both youth and adults, it is essential to discover if they possess the kinds of leadership skills that will make them as successful as possible at positively impacting those lives.

Purpose/Objectives

The purpose of this study is to investigate leadership practices of Cooperative Extension educators with an appointment in 4-H Youth Development in order to provide direction, stimulate and rejuvenate staff development efforts for the educators. To accomplish this, we identified the following objectives:

1. Identify leadership practices used by Extension educators as reported in a self assessment.
2. Identify leadership practices being observed by the educators' direct supervisor.
3. Investigate what differences exist between the skills reported by the educators and the skills observed by the supervisors.

Methods/Procedures

The target population for this descriptive study were all current extension educators with a substantial (51% or greater) appointment in 4-H and Youth Development ($N_1=79$) and their direct supervisors ($N_2=79$) in a north east state. The population was determined by obtaining a current list of employees and their positions from the Human Resources Office of Penn State Cooperative Extension.

The researchers used two instruments to gather data. Bass (1997) developed the Multifactor Leadership Questionnaire (MLQ). The MLQ measures elements of transformational and transactional leadership, and measures organizational outcomes (Brown, Birnstihl, & Wheeler, 1996). Kouzes and Posner (2003) developed the 30 question Leadership Practices Inventory (LPI) measuring leadership practices in five different constructs. The MLQ and LPI measure the competencies leaders use and assesses what skills they need to learn in future professional development opportunities offered.

The researchers mailed the instruments, consent forms, and a letter of introduction to each individual. A follow-up reminder postcard was sent four weeks later. A second survey was sent to non-respondents four weeks after the post card. A total of 158 surveys were sent, and 48 surveys were returned by educators for a 61% response rate and 41 were returned by supervisors for a response rate of 52%. All research data were entered and analyzed using the SPSS 12.0. Researchers compared data from on-time respondents with data given by late responders to control for non-response error.

According to the authors, the MLQ and LPI, have continually produced valid assessments of leadership practices among managerial leaders. Because study participants are administrators and directors of Extension personnel, the researchers concluded the instruments were valid for purposes of this research study. Based upon data collected, the researchers calculated a post-hoc reliability (Cronbach's Alpha) to measure internal consistency as an indicator of the instruments providing reliable scores. The five constructs of the LPI resulted in a reliability level of .889 (individual constructs measured as: Modeling the Way = .85; Inspiring a Shared Vision = .93; Challenging the Process = .91; Enabling Others to Act = .87; and Encouraging the Heart = .92) and the 12 constructs of the MLQ resulted in a reliability of .83 (Transformational constructs = .933; Transactional constructs = .560; and Outcomes = .905).

After analyzing the relationship between leadership constructs and finding high correlations (r values greater than .3), a MANOVA was used to examine overall effect and the result was significant per Hotelling's trace ($p < .001$). Thus based on the recommendation of Tabachnick and Fidell, (2001), the researchers further analyzed the data using independent t-tests to examine the difference between the educator's perceptions of their leadership practices and the supervisors' observations. Using Levene's test for equality of variances, the assumption of equal variance was met. While the sample for this study was a census, the researchers believe that in the future, the population will not be unlike the current group of individuals. The population is therefore an abstract one, and use of inferential statistics is appropriate (Huck, 2004).

Results

In the case of the educators, the aggregate mean score for the transformational constructs is 3.07 with a minimum of 2.10 and maximum score of 3.90 and standard deviation of 0.41. In the case of the supervisors, the aggregate mean score for the transformational constructs was

2.59 with a minimum of .65 and maximum score of 3.65. Overall, educators' ratings were significantly greater than the supervisor's ratings. Table 1 shows the means, standard deviations, and comparison scores for transformational leadership skills.

Table 1
Means and Standard Deviations for Transformational Leadership Skills

Leadership Skills	Educators			Supervisors			<i>t</i>	<i>p</i>
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>		
Idealized Influence- Attributed	48	2.98	.57	41	2.76	.79	1.48	.141
Idealized Influence- Behavior	48	2.96	.47	41	2.67	.82	2.11	.037
Inspirational Motivation	48	3.09	.50	41	2.56	.1	3.34	.001
Intellectual Stimulation	48	3.05	.55	41	2.39	.84	4.45	.000
Individual consideration	48	3.28	.50	41	2.51	.66	6.24	.000
Total		3.07	.41		2.59	.68	4.17	.000

Scale: 0= Not at all, 1= once in a while, 2= sometimes, 3= fairly often, 4= frequently if not always

Further, the overall mean score for educators on the transactional constructs 1.64 and a standard deviation of 0.42 for leadership skills that can be characterized as transactional. The minimum score was 0.69 and the maximum score was a 2.78. For supervisors, the overall perception was 1.62 with a minimum of .69 and a maximum score of 2.31. Overall there was no significant difference between the scores of the educators and the scores of the supervisors. Table 2 below presents the means, standard deviations and comparisons of the scores for transformational leadership skills.

Table 2
Means and Standard Deviations for Transactional Leadership Skills

Leadership Skills	Educators			Supervisors			<i>t</i>	<i>P</i>
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>		
Contingent Reward	48	3.0	.60	41	2.50	.80	3.35	.001
Management by Exception-Active	48	1.37	.82	41	1.38	.81	-2.26	.026
Management by Exception- Passive	48	1.27	.53	41	1.71	.61	-.65	.515
Laissez faire Leadership	48	.90	.48	41	.90	.68	-.062	.950
Total		1.64	.42		1.62	.40	.159	.874

Scale: 0= Not at all, 1= once in a while, 2= sometimes, 3= fairly often, 4= frequently if not always

When measuring leadership outcomes, the educators had an aggregate mean score of 3.0 with a standard deviation of 0.52. This number indicates that more often than not the educators produce positive outcomes. Supervisors had an aggregate mean score of 2.58 with a minimum score of .65 and a maximum score of 3.65. Overall the educators rated themselves significantly higher than they were rated by the supervisors (Table 3).

Table 3
Means and Standard Deviations for Leadership Outcomes

Leadership Outcomes	Educators			Supervisors			<i>t</i>	<i>P</i>
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>		
Extra Effort		2.75	.59	41	2.15	1.04	3.40	.001
Satisfaction		3.23	.60	41	2.88	.86	2.34	.021
Effectiveness		3.04	.47	41	2.69	.86	2.23	.028
Total		3.0	.52		2.58	.80	2.60	.011

Scale: 0= Not at all, 1= once in a while, 2= sometimes, 3= fairly often, 4= frequently if not always

The LPI, or Leadership Practices Inventory, measures five constructs of leadership skills. The LPI instrument contained 30 items measured on a scale that ranged from 1 “almost never” to 10 “almost always.” For the construct of modeling the way the educators had an aggregate mean of 7.77 with a standard deviation of 1.08 demonstrating that they often model the way for their followers. The supervisors had an overall mean of 6.94 and a standard deviation of 1.33. Overall, the educators rated themselves significantly higher than they were rated by the supervisors.

For the construct of Inspiring a Shared Vision, the educators had an aggregate mean of 7.06 with a standard deviation of 1.27. This score again demonstrated that our educators can inspire a shared vision among their followers more often than not. The supervisors had an aggregated mean of 6.19 with a standard deviation of 1.79. Overall, the educators’ ratings were significantly higher than were the supervisor’s ratings.

The construct, Challenging the Process, educators had an aggregate mean of 7.45 and a standard deviation of 1.23. Supervisors had an overall mean of 6.43 and standard deviation of 1.79. Overall, the educators rated themselves significantly higher than they were rated by the supervisors.

The construct, Enabling Others to Act, the educators had an aggregate mean of 8.39 with a standard deviation of 0.92. The supervisors had an overall mean of 7.33 and a standard deviation of 1.35. Overall, the educators’ ratings were significantly greater than were the supervisor’s ratings.

The final construct, Encourage the Heart, the educators had an aggregate mean of 8.26 and a standard deviation of 1.16 . Supervisors had an aggregate mean of 7.22 with a standard deviation of 1.65. Overall, the educators’ ratings were significantly greater than were the supervisor’s ratings. Table 4 below, illustrates the means, standard deviations and comparisons of each of the LPI leadership constructs.

Table 4
Means and Standard Deviations for the Leadership Constructs of the LPI

	Educators			Supervisors			<i>t</i>	<i>p</i>
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>		
<u><i>Modeling the Way</i></u>								
Set a personal example of what he/she expect of others	48	8.35	1.31	41	7.44	1.64	2.91	.004
Spend time and energy making certain that the people that he/she works with adhere to the principles and standards we have agreed on.	48	6.92	1.87	41	7.22	1.65	-.81	.419
Follows through on promises and commitments that he/she makes	48	8.81	1.25	41	7.88	1.54	3.11	.003
Ask for feedback on how his/her actions effect other people’s performance	48	6.75	1.68	41	6.95	1.32	2.01	.047
Build consensus around a common set of values for running our organization	48	7.98	1.47	41	6.83	1.66	3.42	.001
Is clear about his/her philosophy of leadership	48	7.81	1.54	41	6.41	2.01	3.58	.001
Overall		7.77	1.08		6.94	1.33	3.18	.002
<u><i>Inspire a Shared Vision</i></u>								
Talks about future trends that will influence how our work gets done	48	6.85	1.65	41	5.98	1.92	2.29	.024
Describes a compelling image of what our future could be like	48	6.52	1.57	41	5.90	2.40	1.45	.148
Appeals to others to share an exciting dream of the future	48	6.81	1.57	41	6.0	2.19	1.98	.051
Shows others how their long term interests can be realized by enlisting a common vision	48	6.60	1.85	41	6.28	1.74	.833	.407
Paints the “big picture” of what we aspire to accomplish	48	7.54	1.44	41	6.08	1.98	4.01	.000
Speaks with genuine conviction about the higher meaning and purpose of our work	48	8.02	1.67	41	7.0	2.04	2.55	.012
Overall		7.06	1.27		6.19	1.79	2.66	.009
<u><i>Challenging the Process</i></u>								
Seeks out challenging opportunities that test his/her own skills and abilities	48	7.27	1.53	41	6.76	1.77	1.45	.150
Challenges people to try our new and innovative ways to do their work	48	7.13	1.40	41	6.29	2.26	2.11	.037
Searches outside the formal boundaries of his/her organization for innovative ways to improve what we do	48	7.23	1.89	41	6.44	2.19	1.80	.075
Asks “what can we learn?” when things don’t go as expected	48	7.62	1.51	41	6.20	2.14	3.65	.000

Table 4 (continued)

	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>P</i>
Makes certain that we set achievable goals, make concrete plans, and establish measurable milestones for the projects and programs that we work on	48	7.71	1.74	41	6.60	1.95	2.79	.007
Experiment and take risks, even when there is a chance of failure	48	7.58	1.75	41	6.39	2.11	2.87	.005
Overall		7.45	1.23		6.43	1.79	3.23	.002
<i>Enabling Others to Act</i>								
Develops cooperative relationships among the people that he/she works with	48	8.71	1.03	41	7.59	1.60	3.99	.000
Actively listens to diverse points of view	48	8.13	1.21	41	7.07	1.89	3.16	.002
Treats others with dignity and respect	48	9.37	.94	41	8.46	1.25	3.93	.000
Supports the decision that people make on their own	48	7.96	1.46	41	7.10	1.76	2.48	.015
Gives people a great deal of freedom and choice in decided how to do their work	48	8.23	1.31	41	7.17	1.79	3.21	.002
Ensures that people grow in their jobs by learning new skills and developing themselves	48	7.85	1.37	41	6.55	2.04	3.54	.001
Overall		8.39	.92		7.33	1.35	4.36	.000
<i>Encourages the Heart</i>								
Praises people for a job well done	48	8.65	1.23	41	7.41	2.11	3.42	.001
Makes it a point to let people know about his/her confidence in their abilities	48	8.08	1.30	41	6.78	2.11	3.42	.001
Makes sure that people are creatively rewarded for their contributions to the success of our projects	48	7.96	1.34	41	7.50	1.95	1.30	.196
Publicly recognizes people who exemplify commitment to shared values	48	8.10	1.56	41	7.54	1.60	1.68	.095
Finds ways to celebrate accomplishments	48	8.27	1.44	41	7.18	1.89	3.00	.004
Gives members of the team lots of appreciation and support for their contributions	48	8.50	1.38	41	7.00	2.01	4.03	.000
Overall		8.26	1.16		7.22	1.65	3.48	.001

Scale: 1= almost never, 2= rarely, 3= seldom, 4= once in a while, 5= occasionally, 6= sometimes, 7= fairly often, 8= usually, 9= very frequently, 10= almost always

Summary and Conclusions

The finding of no significant difference between scores of educators and supervisors for transactional leadership skills demonstrates a strong agreement between the perceptions of the educators and the observations of the supervisors. Based on reported scores of both groups, this

group of educators does not employ transactional leadership skills with regularity. The only exception is their use of contingent reward, which the group utilizes much more frequently.

The finding of a significant difference between score for transformational leadership skills, leadership outcomes, and each of the constructs of the LPI illustrates a difference in the perceptions of the educators and the observations of the supervisors. Based on the reported scores of both groups, the educators perceive that their use of these skills is significantly higher than what supervisors observe. This is in line with the findings of Bass and Yammarino (1989) who found that leaders tend to rate themselves higher than they are rated by others.

Recommendations and Implications

The results of this study will enable the 4-H youth development program to streamline the professional development processes for extension educators, thus stimulating more effective leadership practices within our organization. This research team recommends that faculty members and the state 4-H program leaders tailor several series of regional and state-wide staff development opportunities in leadership areas where gaps are present between the educators' perceptions and the supervisors' observations. This might include appropriate risk taking, innovative ways to recognize and praise others and ways to encourage teammates and subordinates. By engaging in such an effort, educators may reform practices, philosophies, and behaviors to better serve their youth and adult populations in their counties.

This study has provided the faculty and staff that work with the 4-H Youth Development Educators a baseline to work from when planning and implementing staff development opportunities focused on leadership efforts. Extension could implement similar studies in other areas, enabling the larger organization to provide staff development opportunities that are helpful and engaging to the county based educators.

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