The Journal of Extension

Volume 49 | Number 4 Article 10

8-1-2011

Perceptions of Missouri 4-H Youth Development Personnel Regarding Interorganizational Cooperative Behavior

Billy R. McKim
Texas A&M University, bmckim@aged.tamu.edu

Robert M. Torres
University of Arizona, rtorres@cals.arizona.edu

Recommended Citation

McKim, B. R., & Torres, R. M. (2011). Perceptions of Missouri 4-H Youth Development Personnel Regarding Interorganizational Cooperative Behavior. *The Journal of Extension, 49*(4), Article 10. https://doi.org/10.34068/joe.49.04.10

Journal of Extension
www.joe.org

August 2011
Volume 49 Number 4
Article Number 4FEA9

Return to Current Issue

Perceptions of Missouri 4-H Youth Development Personnel Regarding Interorganizational Cooperative Behavior

Billy R. McKim
Assistant Professor and Extension Specialist
Texas A&M University
College Station, Texas
bmckim@aged.tamu.edu

Robert M. Torres
Professor and Department Head
University of Arizona
Tucson, Arizona
rtorres@cals.arizona.edu

Abstract: Perceptions of 4-H youth development personnel regarding interorganizational cooperation were studied between the perceived and desired levels of cooperative activities between 4-H youth development personnel and secondary agriculture teachers. Results indicated that 4-H youth development personnel wanted higher levels of coordinated efforts between the organizations and to utilize the resources provided by secondary agriculture teachers. Despite the desire of 4-H youth development personnel to participate in interorganizational cooperation, their perceived level of cooperation was lower than that of their desired level.

Introduction

Because of shrinking operation budgets, the speed of technology and information development, and a decreasing agrarian society, effective youth development efforts for rural youth are becoming more and more difficult. Because it is nearly impossible to have sufficient resources available and have the combined expertise of many in one person, cooperation between agencies is necessary for program delivery.

"The truly committed cooperative group is probably the most productive tool humans have" (Johnson & Johnson, 2009, p. 106). Extension 4-H programs and secondary agricultural education programs offered through the public school system are an example of similar organizations with the potential for increased productivity when both are committed to a similar goal. The responsibility of ensuring the future success of developing youth within agricultural education falls upon both Extension 4-H programs and secondary agricultural education programs.

Despite the similarity of their policies and goals, Extension and secondary agricultural education programs have historically encountered challenges in cooperating with one another. Hamlin (1949) noted that previous

attempts made to develop memoranda of understanding on state and national levels were not successful. In a report on the nature of memoranda of understanding between Extension services and State Departments of Vocational Education, Rogers (as cited in Lemons, 1958; Omar, 1963) noted the existence of 17 memoranda, most of which were at the state level. In addition to Rogers' report, over a span of time exceeding 70 years, no less than 17 studies have been conducted in at least 13 states regarding the status of cooperation between 4-H agents and agriculture teachers.

Grage, Ricketts, and Place (2002) noted that Florida agricultural educators and Extension faculty desired cooperative interdisciplinary relationships, emphasizing aspects such as mutual respect and communication. Other findings indicated by Grage and associates (2002) indicated a lack of awareness of the organizational structure and dynamics of the other organization by their respective counterpart. Competition was also noted to be an influential factor on the cooperative relationships of agriculture teachers and Extension faculty members. Similar findings were iterated by Grage, Place, and Ricketts (2004) and Ricketts and Place (2005), who noted the need for the organizations to share resources and have open communication. Bruce and Ricketts (2007) noted in their study in Pennsylvania that possible barriers such as time constraints, programmatic differences, and inequitable resources existed.

Numerous attempts at forcing cooperation have been made by states and the federal government, mostly by way of legislation, formal agreements, and memoranda. These attempts have proven to be less than effective (Lemons, 1958; Omar, 1963; Smith, 1966). As Hillison stated, "both organizations have suffered budget cuts, but still have a very large clientele to serve" (1996, p. 13). These studies have demonstrated that relationships between 4-H agents and agriculture teachers vary among the states. The mere existence of the numerous cooperative agreements and memoranda suggests that individual states and the federal government have acknowledged that cooperation between 4-H agents and agriculture teachers is important and must be clarified.

Purpose and Research Objectives

The purpose of the perceptual study reported here was to explore the cooperative nature between 4-H agents and high school agricultural education teachers, as held by 4-H youth development personnel. The following research objectives guided the study:

- Describe the perceptions of 4-H youth development personnel regarding the influence of factors of cooperation and the perceived importance of those factors on cooperative relationships.

- Describe the perceptions of 4-H youth development personnel regarding cooperative activities and their frequency of involvement in those cooperative activities.

Procedures

The population for the descriptive study was county-level 4-H youth development personnel in Missouri. The University of Missouri Extension *Directory of Offices and Employees* included a total of 108 4-H youth specialists, 4-H youth educators, 4-H youth associates, or 4-H youth assistants who were employed by the University of Missouri Extension at the time that the directory was accessed. State-level 4-H youth specialists were excluded from the study because their professional responsibilities to the entire state would presumably not allow them opportunities to exercise cooperative behaviors in the same capacity as regional

and county Extension personnel. Although county-level Extension faculty in Missouri are no longer classified as agents by title, the role in which they serve remains the same as when University of Missouri Extension classified them as agents. Thus, we will refer to them as 4-H agents ($N = 91$) for simplicity.

The data collection instrument used in the study was developed by the researchers after consulting the data collection instruments of Omar (1963), Smith (1966), and Schroeder and Moss (1984). Three sections of the five-sectioned instrument were used to address the research objectives. The first section was composed of a double matrix structure containing 12 statements representing a sampling of youth development activities. The second section consisted of a double-matrix structure containing seven statements representing a sampling of factors related to professional relationships between 4-H youth development personnel and secondary agriculture teachers. The third section also used a double matrix structure consisted of 13 statements used to determine the perceived affect that each activity or factor had on their cooperation. Each agent was asked to indicate the perceived level of *what is* and *what should be* in regard to how each activity or factor affects their professional relationship with agriculture teachers using a five-point summated rating scale.

Face validity and content validity of the data collection instrument were determined by a panel of eight experts, four of whom were faculty members from the University of Missouri Extension and four faculty members from the University of Missouri, Department of Agricultural Education. Reliability of the instrument was determined by conducting a pilot test using a sample of county 4-H youth development agents in a neighboring state ($n = 35$). The SPSS software was used to determine the Cronbach's alpha coefficients for the subscales, which ranged from .83 to .96 ($n = 34$).

After five points of contact (Dillman, 2007), a response rate of 72.50% ($n = 66$) was obtained. Non-response error was a relevant concern; therefore, procedures for handling nonrespondents were followed as outlined by Miller and Smith (1983). Respondent and nonrespondent data were compared using an ANOVA to test the variables of interest between respondents and nonrespondents. No significant differences ($p > .05$) existed between respondent and nonrespondent data; therefore, the nonrespondent data were pooled with respondent data, yielding a final response rate of 82.40% ($n = 75$).

Findings

To determine the levels of influence of factors of cooperative relationships, 4-H agents were asked to identify how influential seven factors were toward having cooperative relationship with an agriculture teacher (Table 1). Agents were also asked to consider the importance of 12 potential factors to cooperative relationships from two perspectives, what is (Table 2) and what should be (Table 3).

Table 1.
Influence of Factors of Cooperation as Perceived by 4-H Agents (n = 74*)*

		Influence	
Rank	**Cooperative Activity**	***M***	***SD***
1	Mutual respect of efforts	4.24	0.89
2	Personality of the agriculture teacher	3.86	1.00
3	Success of the agriculture teacher	3.75	0.88

4	Frequency of interaction	3.71	0.84
5	Views passed down from county or state administrators	3.27	0.88
6	Similarity of age	3.07	0.74
7	Belief that 4-H and FFA are always in competition with one another	2.62	0.97
Note. Influence Scale: 1 = Very Negative; 2 = Slightly Negative; 3 = Neutral; 4 = Slightly Positive; 5 = Very Positive			

Table 2.

4-H Agents' Perceptions of Importance of Cooperative Factors, Based on "What Is" (n = 74)

		What Is[a]	
Rank	**Cooperative Activity**	***M***	***SD***
1	Plan events so that they are not in conflict or competing with one another	3.61	1.32
2	Coordination of efforts for training similar competitive teams, i.e. Livestock Judging, etc.	3.58	1.22
3	Consulting each other's special abilities and knowledge in problem situations	3.51	1.15
4	Similarity in program goals	3.43	1.11
5	Compatibility of personality	3.39	1.13
6	Initiative in contacting one another	3.36	1.15
7	Having the agriculture teacher be a guest presenter in an Extension presentation or at a 4-H meeting	3.09	1.25
8	Differences of program structure (4-H & FFA)	2.81	1.14
9	Degree of personal friendship	2.72	1.24
10	Variation in total years experience	2.39	1.16
11	Tenure at present location	2.26	1.18
12	Similarity or difference in our age	1.93	1.05
Note. [a]Scale: 1 = Not Important; 3 = Neutral; 5 = Very Important			

Table 3.

4-H Agents' Perceptions of Importance of Cooperative Factors, Based on "What Should Be" (n = 74)

		What Should Be[a]

Rank	Cooperative Activity	*M*	*SD*
1	Plan events so that they are not in conflict or competing with one another*	4.34	0.84
2	Consulting each other's special abilities and knowledge in problem situations*	4.12	0.74
3	Coordination of efforts for training similar competitive teams, i.e. Livestock Judging, etc.*	4.06	0.85
4	Initiative in contacting one another	3.99	0.84
5	Similarity in program goals*	3.93	0.73
6	Having the agriculture teacher be a guest presenter in an Extension presentation or at a 4-H meeting*	3.82	0.90
7	Compatibility of personality*	3.54	1.02
8	Degree of personal friendship	2.89	1.09
9	Differences of program structure (4-H & FFA)	2.88	1.03
10	Variation in total years experience	2.41	1.05
11	Tenure at present location	2.25	1.14
12	Similarity or difference in our age	1.88	0.97
Note. [a]Scale: 1 = Not Important, 3 = Neutral, 5 = Very Important; * ANOVA comparison of What Is and What Should Be yielded significant differences ($p < .05$)			

The purpose of research objective two was to describe and prioritize the cooperative activities based on 4-H agents' perceptions of *what is* and *what should be*. 4-H agents were asked "How often do youâ ¦" and "How often should youâ ¦" for 12 cooperative activities. A summary of the agents' responses for *what is*, is presented in Table 4 and a summary of their responses for *what should be* is summarized in Table 5, both are ordered by ranked, based on means score.

Table 4.
4-H Agents' Perceptions of Cooperative Activities, Based on "What Is" (n = 74)

		What Is[a]	
Rank	**Cooperative Activity**	***M***	***SD***
1	Consult each other's special abilities and knowledge in problem situations	2.99	1.28
2	Exchange or forward e-mail messages which might be beneficial to the other's program	2.99	1.36
3	Coordinate efforts toward similar goals related to youth	2.93	1.27
4	Share responsibility for publicity concerning educational programs in agriculture in the county	2.53	1.30
5	Discuss space and facilities available for conducting education programs in agriculture	2.43	1.21
6	Identify common educational objectives of Extension and high school agriculture programs	2.42	1.16
7	Discuss community needs pertaining to agriculture	2.39	1.08
8	Conduct joint demonstrations, workshops, or county field days	2.25	1.26
9	Serve as consultants to each other's advisory committee	2.24	1.28
10	Coordinate efforts for training similar competitive teams	2.21	1.40
11	Discuss fundraising activities	1.99	1.14
12	Discuss advancements in instructional materials available for teaching educational programs in agriculture	1.89	1.06

Note. [a]Scale: 1 = Never; 2 = Rarely; 3 = Occasionally; 4 = Frequently; 5 = Always

Table 5.
4-H Agents' Perceptions of Cooperative Activities, Based on "What Should Be" (n = 74)

		What Should Be[a]	
Rank	**Cooperative Activity**	***M***	***SD***
1	Coordinate efforts for training similar competitive teams	4.04	.72
2	Consult each other's special abilities and knowledge in problem situations	3.95	.77
3	Exchange or forward e-mail messages which might be beneficial	3.92	.86

	to the other's program		
4	Share responsibility for publicity concerning educational programs in agriculture in the county	3.73	.95
5	Identify common educational objectives of Extension and high school agriculture programs	3.64	.81
6	Coordinate efforts toward similar goals related to youth	3.61	.99
7	Conduct joint demonstrations, workshops, or county field days	3.59	.83
8	Discuss space and facilities available for conducting education programs in agriculture	3.59	.91
9	Discuss community needs pertaining to agriculture	3.51	.77
10	Serve as consultants to each other's advisory committee	3.51	1.00
11	Discuss advancements in instructional materials available for teaching educational programs in agriculture	3.22	1.04
12	Discuss fundraising activities	3.05	1.01
Note. [a]Scale: 1 = Never; 2 = Rarely; 3 = Occasionally; 4 = Frequently; 5 = Always			

Results and Discussion

On average, 4-H agents perceived mutual respect as having a positive influence on cooperative relationships with secondary agriculture teachers. These findings support those of Grage, Place, & Ricketts (2004), who suggested agriculture teachers and Extension faculty desired cooperative interdisciplinary relationships, emphasizing aspects such as mutual respect and communication. Respect is often built on a mutual basis (Johnson & Johnson, 2009), but one of the individuals must give some form of respect first. Who will have to give respect first in order for the other to reciprocate, in an effort to eventually establish mutual respect?

Most factors that 4-H agents perceived as having a neutral influence on cooperative relationships with agriculture teachers were related to factors that were out of the control of the agent, such as the success and personality of an agriculture teacher. Arguably, agents' ability to overlook uncontrollable issues is commendable and deserves praise. Conversely, agents believed that some factors within their control as having a neutral influence on cooperative relationships, both of which were related to effective communication.

When 4-H agents were asked to indicate "what is" in regard to the importance of 12 potential factors of cooperative relationships, agents perceived most factors as having neutral to no importance. When asked to indicate "what should be" in regard to the importance of 12 potential factors of cooperative relationships, agents on average believed that it was somewhat important to plan events so that they do not conflict or compete with one another, consult each other's special abilities, and coordinate efforts for training similar competitive teams.

Although mean scores indicated that *similarities in program goals* and *initiative in contacting one another* were of neutral importance, agents indicated that both should be more important. Items associated with factors beyond the control of the 4-H agents, such as years of experience, age, and differences in program

structure, were on average of little or no importance to agents.

When 4-H agents were asked to indicate the frequency with which they participate in 12 potential cooperative activities, agents indicated that they participated in all 12 activities rarely or less than occasionally. Also, agents on average indicated that they should participate in the 12 potential cooperative activities at least occasionally; in other words, more than what they were participating in. Based on "what should be," 4-H agents believed that participation in activities related to coordination and consultation were the most important. *Coordinating efforts toward similar goals related to youth* was the item with the highest ranked item based on mean score, followed by *consulting each other's special abilities and knowledge in problem situations*.

Overall, 4-H agents indicated a desire to participate in cooperative activities more often. This supports the findings of the 1984 study by Schroeder and Moss that reported that the 11 of the 12 activities respondents were asked about in the study were appropriate agriculture teachers to cooperate with other organizations.

Conclusions and Recommendations

The effects of a struggling economy are evident in public schools and throughout Extension. However, the areas identified as needing the greatest amount of improvement were related to areas of communication and planning, when done well, often associated with efficiency and success.

Communication

According to Axelrod (1984, 1997), cooperation requires ongoing and frequent interaction of the parties expecting to cooperate. A lack of interaction may be caused from a lack of communication or merely a lack of a resource, such as a directory to connect the organizations. One example of a lack of interaction was a 4-H agent who returned a questionnaire with a note indicating that he or she did not have a high school agricultural education program in his or her county. Upon further investigation, the researchers found that the county did in fact have a high school agricultural education program. "Views passed down from administrators" was also perceived as having a neutral influence on cooperative relationships. Perhaps the nature of the messages passed down from administration may determine whether the influence is positive or negative.

There is very little cost associated with improved communication. Email is for the most part free, and list-serves take little time and effort to create. Likely, the greatest cost to improve communication between agriculture teachers and 4-H agents will be associated with time and effort. More often than not, time is a precious commodity, given that many states are trying to overcome budget cuts that have in some cases resulted in layoffs or furloughs. However, it is likely that more can be accomplished through a culture of cooperation, collaboration, and sharing. Asking for help and offering to lend a hand is not a new concept for agriculture teachers or 4-H agents, nor is it for their colleagues in other areas, such as family and consumer sciences.

Although the study reported here was focused on the cooperative relationship between secondary agriculture teachers and 4-H agents and primarily restricted to youth development, other opportunities for collaboration exist within agriculture, family and consumer sciences, volunteer programs, and professional development.

Planning

Planning is an area where cooperation may benefit both secondary agriculture teachers and 4-H agents, but in

different ways. Stimson (1920) suggested that conferences or committees were necessary to coordinate efforts of the federally funded agencies providing agricultural education in order to avoid overlapping and overlooking. Since Stimson's time, many researchers have concluded that beginning agriculture teachers, and in some cases tenured teachers, experience great difficulty in establishing advisory committees. The purpose of these advisory committees is to help them identify what to include in their agricultural education programs and to ensure rigor and relevance of subject matter. One of Extension's greatest strengths is the network that nearly every agent has within his or her county. Who better to advise agriculture teachers on subject matter and content than an agent along with members of the agent's network; farmers, ranchers, bankers, Master Gardeners and Master Naturalists, and Extension specialists?

Teachers of agriculture, family and consumer sciences, and science may likely be able to offer expertise to an agent as well. Although many agents are likely to have some education training or background, most public school teachers undergo extensive preparation in curriculum development and formal instructional methods in their pre-service teacher preparation program. When appropriate, 4-H agents could involve agriculture teachers in planning sessions for workshops or outreach events. Also, teachers may be able to host workshops or outreach events at the schools where they work.

Competition

Competition seems to be a double-edged sword. Although it appears that 4-H agents believe it is important and acceptable to cooperate with agriculture teachers to coach competitive teams, it also appears to be important that careful consideration needs to be given to planning and coordination so that events scheduled by the agriculture teacher don't conflict with events scheduled by the 4-H agent. It is likely that teams sponsored by agriculture teachers will be associated with FFA (The National FFA Organization) and teams sponsored by 4-H agents will be associated with 4-H. Thus, it is important that cooperating to train competitive teams does not evolve into having those teams compete against one anotherâ a reported point of contention between agriculture teachers and 4-H agents in other studies. This idea of balance must be extended beyond training teams.

The relationship between teachers and agents must be balanced with give-and-takeâ it cannot consist of all take and no return, or vice versa. For many years, numerous MOUs at the state and federal level have failed, arguably, because the MOUs were not tailored to the needs of the counties. If administrators want to promote cooperation between teachers and agents, a template document should be developed at the state-level to include possible areas of cooperation in agriculture, family and consumer sciences, and volunteerism. These areas should be identified by a special committee of tenured teachers, agents, specialists, school administrators, and Extension administrators.

The special committee should solicit examples of cooperation and collaboration throughout the state that have worked to the benefit of public schools and Extension. The template should be distributed by state-level school administrators and Extension administrators throughout the official networks to school district administrators and regional, district, area, and county Extension administrators. MOUs should then be developed and implemented on a county basis, so that the needs and the best interests of the individual counties are accounted for. Furthermore, the county-tailored MOUs are more likely to capitalize on the strengths of the individuals involved and common ground of the schools and Extension.

References

Axelrod, R. (1984). *The evolution of cooperation*. New York: Basic Books, Inc.

Axelrod, R. (1997). *The complexity of cooperation: agent-based models of competition and collaboration.* Princeton, New Jersey: Princeton University Press.

Borich, G. D. (1980). A needs assessment model for conducting follow-up studies. *Journal of Teacher Education, 31*(3), 39-42.

Bruce, J. A., & Ricketts, K. G. (2007). *Exploring cooperation among secondary agricultural educators and Extension educatorsâ A qualitative analysis.* Paper presented at the American Association for Agricultural Education, North Central Agricultural Education Research Conference, Columbia, MO.

Bruce, J. A., & Ricketts, K. G. (2008). Where's all the teamwork gone? A qualitative analysis of cooperation between members of two interdisciplinary teams. *Journal of Leadership Education,* 7(1), 65-73. Retrieved from: http://www.fhsu.edu/jole/issues/JOLE_7_1.pdf

Converse, P. D., Wolfe, E. W., Huang, X., & Oswald, F. (2008). Response rates for mixed-mode surveys using mail and e-mail/web. *American Journal of Evaluation,* 29(1), 99-107.

Cooper, A. W., & Graham, D. L. (2001). Competencies needed to be successful county agents and county supervisors. *Journal of Extension* [On-line], 39(1) Article 1RIB3. Available at: http://www.joe.org/joe/2001february/rb3.php

Dillman, D. A. (2007). *Mail and Internet surveys: The tailored design method* (2nd ed.). Hoboken, NJ: John Wiley and Sons, Inc.

Grage, K. D., Place, N. T., & Ricketts, J. C. (2004). Exploring cooperation between secondary agricultural educators and livestock Extension agents: a case study. *Journal of Extension* [On-line], 42(6) Article 6RIB7. Available at: http://www.joe.org/joe/2004december/rb7.php

Grage, K. D., Ricketts, J. C., & Place, N. T. (2002). *Exploring cooperation and collaboration between secondary agricultural educators and Extension faculty in the state of Florida.* Paper presented at the 29th National Agricultural Education Research Conference, Las Vegas, NV.

Hamlin, H. M. (1949). *Agricultural education in community schools*. Danville, IL: Interstate Printing Company.

Hillison, J. (1996). Agricultural education and Cooperative Extension: the early agreements. *Journal of Agricultural Education*, 9-14.

Johnson, D. W., & Johnson, F. P. (2009). *Joining together* (10th ed.). Columbus, OH: Pearson.

Komives, S. R., Lucas, N., & McMahon, T. R. (2007). *Exploring leadership* (2nd ed.). San Francisco, CA: John Wiley & Sons.

Lemons, J. R. (1958). *A Study of the Working Relationships of the Agricultural Extension Service and the Vocational Agriculture Program in East Tennessee.*, University of Tennessee, Knoxville, Tennessee.

Miller, L. E., & Smith, K. L. (1983). Handling nonresponse issues. Journal of Extension [On-line], 21(5), 43-50. Available at: http://www.joe.org/joe/1983september/83-5-a7.pdf

Omar, A. M. M. (1963). *Working relationships of county Extension agents and teachers of vocational*

agriculture in Michigan. Unpublished doctoral dissertation, Michigan State University, East Lansing, MI.

Ricketts, K. G., & Place, N. T. (2005). Cooperation between secondary agricultural educators and Extension agents. *Journal of Extension* [On-line], 43(6) Article 6FEA6. Available at: http://www.joe.org/joe/2005december/a6.php

Schroeder, M., & Moss, J. W. (1984). *The cooperative relationship between vocational agriculture teachers and Extension agents*.

Smith, W. L. (1966). *An examination of the cooperative cognation between vocational agriculture instructors and county extension Agents in planning and conducting the adult prospectus of instruction in Oklahoma.* Oklahoma State University, Stillwater, OK.

Stimson, R. W. (1920). *Vocational Agricultural Education: By Home Projects*. New York, NY: The MacMillan Company.
