

A SYNTHESIS OF LEADERSHIP DEVELOPMENT RESEARCH IN AGRICULTURAL EDUCATION: 1988 - 2003

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Abstract

The concept of leadership development has been researched in agricultural education for decades. This study reviewed the Journal of Agricultural Education and the Proceedings of the National Agricultural Education Research Meeting/Conference to determine the number of research papers published between 1988 and 2003, the prolific leadership researchers, and the focus areas of their leadership research. Only 15 researchers had published three or more leadership-related studies over the 16 year period. Five percent of the articles in both publications were classified as leadership-related studies. The focus areas that emerged were: agricultural education/FFA, extension education/4-H, collegiate, and community leadership.

Introduction

Leadership has been associated with agricultural and extension education for decades. Agricultural education has prided itself on developing youth leadership through secondary agricultural programs and the FFA organization since the early 20th century. At the same time, extension programming has helped to develop youth leadership through the 4-H youth development program and adult rural community leadership since the passage of the Smith-Lever Act in 1914.

Throughout the decades there have been numerous authors and researchers who have studied the concept of leadership. Bennis and Nanus (1985) stated that “decades of academic analysis have given us more than 350 definitions of leadership” (p. 4). They went on to discuss the importance of leadership by writing, “Leadership is what gives an organization its vision and its ability to translate that vision into reality” (p. 20). Recent research has supported the claim that community youth development programs have a beneficial effect on the leadership ability of today’s youth. The National Research Council (2002) in their report, *Community Programs to Promote Youth Development* concluded that:

All youth need an array of experiences to reduce risk-taking and promote both current well-being and successful transition to adulthood. Such experiences include opportunities to learn skills, to make a difference in their communities...to have experiences in leadership and shared decision making...(p. 299).

Community and adult leadership development has long been a component of extension education programs. Seevers, Graham, Gamon, and Conklin (1997) discussed leadership development within the Cooperative Extension System when they wrote, “Community development programs focus on improving the physical, economic, social, cultural, and institutional environment in which the people of a community live and work. Leadership development and efforts in revitalizing rural America are major base program areas” (p. 10).

Leadership has been identified within Radhakrishna’s (1998) framework of research as a component of “knowledge base for learning and teaching” (p. 558). Leadership has long been viewed as a vital component of agricultural education. However, it is vitally important to determine

if leadership-related research has had a consistent focus that is grounded with a theoretical foundation.

Theoretical Framework

Warmbrod (as cited in Radhakrishna & Xu, 1997) proposed that if researchers are to make marked progress, they should make their highest priority understanding the relevance, significance, and importance of the problems and issues they research. Crunkilton (1988) advocated that a research framework would provide guidance for where it is agricultural education research has been, and the possibilities of where individuals, institutions, and the profession can go in the future. Yet without the existence of such a framework, research on leadership development remains without a central focus.

Moore (1987) investigated doctoral dissertation research in agricultural education and concluded that it lacked focus. Buriak and Shinn (1989) discovered that deans and directors also believed that agricultural education research as a whole lacked focus and that the agricultural education profession was either incapable or reluctant to focus research. In addition, Buriak and Shinn (1993) asked if the profession identifies, prioritizes, and researches “focused problems and issues that are a part of a collective and systematic effort” (p. 31)? Has this been done in leadership development research?

Williams (1991a, 1991b) illustrated that we as agricultural education researchers, regardless of professional stage, ought to review priorities, develop a research program, build that program on a sound theoretical basis, and engage in an effort to form research teams. Williams (1991a) stated “research must be the strongest component of a discipline, serving as a foundation for teaching and extension” (p. 8). “Researchers in agricultural education must take the initiative to prioritize needs and direct resources to high-impact research” (Williams, 1991a, p. 8). Williams called for researchers to conduct analysis at all levels of studies to identify and plan research priorities. However, Williams (1991b) cautioned that we must be patient as

our research inquiries may take a lifetime to discover something substantial.

Like much of the research within agricultural education, research into leadership development has been disjointed. In 1993, Buriak and Shinn clearly identified leadership development as a “research objective” for the profession (p. 32). Buriak and Shinn further determined that learning and teaching are a foundation of the agricultural education mission and that achievement is a major part of learning and teaching. Leadership development was identified as an important and integral part of “individual achievement” which was a foundational component of the “knowledge base for learning and teaching” (Radhakrishna, 1998, p. 558). Thus, an understanding of leadership development is central to the agricultural education mission.

Newcomb (1993) shared that agricultural education research is conducted to basically get by. To offer enlightenment, Newcomb further added that the research in agricultural education needed to be coordinated, conducted, and focused with an enthusiastic vision.

In a study on conceptual and theoretical frameworks in agricultural education research, Dyer, Wittler, and Washburn (2001) reported that, “Approximately 81% of the published qualitative studies and 68% of the quantitative studies failed to focus the inquiry around theory explanation or development, or the study exhibited a theoretical framework that was poorly developed” (p. 230). Ary, Jacobs, and Razavieh (2002) described theory by stating,

The goal of theory formation has been achieved to a far greater extent in the physical sciences than in the social sciences...Only with maturity does a science begin to integrate the isolated knowledge into a theoretical framework. (p. 14)

As leadership development researchers strive for more focus and theory development, the first step should be summarizing what has already been researched in the area of leadership. Radhakrishna (1998) stated that a “synthesis of research conducted is critically important

if we are to determine future research priorities. Synthesis of research for a specific subject matter topic, considered important and crucial to the profession, should be undertaken” (p. 560). Identifying the leading researchers and leadership-related topics will help the profession to focus effort, time, and resources on significant questions related to leadership development in agricultural education.

Purpose and Objectives

The purpose of this research study was to identify and synthesize research related to leadership development that has been published in agricultural education over the past 16 years, 1988 to 2003. Specific objectives of the study included:

1. Determine the number of leadership research papers published in the *Journal of Agricultural Education (JAE)* and published in the proceedings of the *National Agricultural Education Research Meeting/Conference (NAERC)* from 1988 to 2003.
2. Identify the leading researchers who have published leadership development research in the *JAE* and *NAERC* proceedings from 1988 to 2003.
3. Identify the major focus areas of leadership development research published in the *JAE* and *NAERC* proceedings from 1988 to 2003.

Methods

The *Journal of Agricultural Education (JAE)* and the *National Agricultural Education Research Meeting/Conference Proceedings (NAERC)* were investigated from 1988 to 2003. 1988 was selected because it was the start of the electronic archives of the *JAE*. Electronic copies of the journals and proceedings were reviewed when available in the Department of Agricultural Education or online. Hard copies of each paper were printed for analysis purposes. Hard copies of the journals and proceedings were reviewed when electronic copies were not available.

The authors reviewed the title and abstract of each article to determine if it related to leadership development. Articles were then placed into one of four categories that emerged in the review process.

The analysis was limited to authors who were members of the professoriate (Assistant, Associate, and full Professors) because of their continued participation in research activities. The *Publication Manual of the American Psychological Association (APA, 2001)* clarifies authorship by stating researchers “take responsibility and credit, including authorship credit, only for work they have actually performed or to which they have contributed” (p. 395). Undergraduate students, graduate students, graduate research assistants, or others were not included in the analysis or given authorship credit. When an article had multiple authors, each professor was credited with a leadership research paper.

Thirty articles from the *JAE* and 35 from *NAERC* were reviewed for a total of 65 research papers. The study was limited to the *Journal of Agricultural Education* and the *National Agricultural Education Research Conference* because those are the two primary venues for the publication of research conducted in agricultural education. Some papers with similar titles and authors were published in both venues. These papers were counted in both categories because even though they may have been the result of one research project, they were submitted, reviewed, accepted, and published separately in both publications.

Findings

Objective 1 of the study was to determine the number of leadership research papers published in the *JAE* and published in the proceedings of *NAERC* from 1988 to 2003. Table 1 includes the summary of leadership-related articles and total articles published over the period.

The number of leadership articles published in the *Journal of Agricultural Education* ranged from zero to five per year, with an average of 1.88 articles per year. Leadership related articles made up slightly

over 5% of the total number of articles published in the *JAE*.

The number of leadership articles published in the *National Agricultural Education Research Meeting/Conference* ranged from zero to seven per year, with an average of 2.19. Leadership

related articles made up slightly less than 5% of the total number of articles published in the proceedings from 1988-2003. Table 2 includes the statistics for number of leadership articles, average articles per year, and percent of total articles published for the period researched.

Table 1
Leadership Research Studies Published in the Journal of Agricultural Education (JAE) and National Agricultural Education Research Conference (NAERC) (1988 – 2003)

Year	Leadership Articles		Total Leadership Articles	Total Articles		Overall Total
	<i>JAE</i>	<i>NAERC</i>		<i>JAE</i>	<i>NAERC</i>	
1988	1	3	4	30	36	66
1989	2	1	3	35	36	71
1990	0	1	1	45	44	89
1991	0	0	0	36	36	72
1992	1	2	3	31	44	75
1993	5	3	8	44	48	92
1994	5	1	6	47	48	95
1995	2	1	3	34	48	82
1996	2	0	2	31	36	67
1997	2	2	4	32	46	78
1998	2	0	2	32	48	80
1999	1	1	2	31	47	78
2000	1	7	8	44	48	92
2001	2	6	8	30	48	78
2002	0	1	1	30	48	78
2003	4	6	10	35	48	83
Totals	30	35	65	567	709	1276

Table 2
Statistics on Leadership Articles Published in JAE and NAERC Proceedings (1988-2003)

Publication	Leadership Articles			Overall Total Articles	Average Leadership Articles/Year	Percent of Total Articles
	Min./Yr.	Max./Yr	<i>f</i>			
JAE	0	5	30	567	1.88	5.29
NAERM/C	0	7	35	709	2.19	4.94
Total	0	10	65	1276	4.06	5.09

Each leadership research study was classified by author (university faculty member) and by the focus area of the research. The researchers with the most leadership related articles were Seevers ($n = 7$) and Dormody ($n = 6$). Two researchers, Carter and Talbert, published 5 leadership studies. Four researchers: Boyd, Townsend,

Dyer, and Wingenbach, each had four articles published over the period. Seven authors had three papers published and 18 authors had two papers published. A total of 41 researchers had only one leadership related study published from 1988 to 2003. Table 3 includes the number of studies published by author and focus area.

Table 3
Leading Leadership Researchers and Major Focus Areas (1988-2003)

Researcher	Focus Areas				Total
	Extension Ed./4-H	Ag. Ed./FFA	Collegiate	Community	
Seevers, B.	3	3	0	1	7
Dormody, T.	2	3	0	1	6
Carter, R.	1	1	3	0	5
Talbert, B. A.	1	3	0	1	5
Boyd, B.	3	0	1	0	4
Dyer, J.	0	1	3	0	4
Townsend, C.	0	0	3	1	4
Wingenbach, G.	1	2	1	0	4
Ball, A.	0	0	3	0	3
Balschweid, M.	1	2	0	0	3
Birkenholz, R.	0	0	3	0	3
Croom, B.	0	3	0	0	3
Flowers, J.	0	3	0	0	3
Garton, B.	0	0	3	0	3
Vaughn, P.	1	2	0	0	3

Objective 3 of the study was to identify the major focus areas of leadership development research in agricultural and extension education. Each leadership research study was placed into one of four focus areas that were identified in the review of literature; extension education/4-H, agricultural education/FFA, collegiate, or community leadership development. The focus areas with the largest number of research papers were agricultural education/FFA ($n = 20$) and collegiate leadership development ($n = 20$). The

extension education/4-H area was third ($n = 19$) followed by community leadership development ($n = 6$).

The leading researchers in each area were Seevers ($n = 3$), Dormody ($n = 3$), Croom ($n = 3$), and Flowers ($n = 3$) in agricultural education/FFA. In the collegiate area; Carter ($n = 3$), Townsend ($n = 3$), Dyer ($n = 3$), Ball ($n = 3$), Birkenholz ($n = 3$), and Garton ($n = 3$) were the leading researchers. Seevers and Boyd each published three research studies related to leadership development in extension education/4-H.

The leadership research studies in each focus area; agricultural education/FFA, extension education/4-H, collegiate, and community were reviewed by the authors to identify common research threads.

Agricultural Education/FFA: Studies conducted in Iowa (Carter & Spotanski, 1989; Wingenbach & Kahler, 1997), Arizona, Colorado, and New Mexico (Dormody & Seevers, 1994a, 1994b, 1995) have examined youth leadership development. Researchers have investigated students' perceptions of leadership and personal development (Carter & Spotanski), self-perceived youth leadership and life-skills (Wingenbach & Kahler) and FFA participation and youth leadership life skills development (Dormody & Seevers, 1994b).

Dormody and Seevers (1995) attempted to predict FFA members youth leadership life skills development. They concluded that participation in FFA leadership activities had a weak positive relationship with youth leadership life skills development (YLLSD) and explained 2.3 percent of the variance in YLLSD scores. Dormody and Seevers also concluded that "Leadership life skills development was not related to self esteem, years in FFA, age, ethnicity, or place of residence" (p. 69).

In a study conducted in 1997, Wingenbach and Kahler (1997) asked how much the profession knows about youth leadership development? The researchers concluded that "participation in FFA leadership activities, in combination with the variables after school jobs, years in the FFA, self-reported cumulative grades, and gender, accounted for 22.3% of the variance in youth leadership and life skills development scores" (p. 454). Wingenbach and Kahler concluded that, "With less than 25% of the variance explained in the phenomenon known as leadership development, the Agricultural Education profession has much to discover" (p. 454).

Collegiate Leadership: Within the area of college leadership research includes several key parts. Leadership development within the college scope occurs in one of three areas: within a course, an academic

department, and through experiential leadership.

Formal Leadership Development Courses: Leadership courses have not always existed. Researchers (Schumacher & Swan, 1993) investigated the need for formal leadership training for students in a land-grant college of agriculture. As courses began to develop, areas of leadership inquiry began to emerge. Some of the collegiate leadership topics researched included; leadership attitudes of individuals enrolled in leadership development labs (Cummins, Townsend, Briers, & Shinn, 1995), the struggles of developing an undergraduate leadership course (Corn & Trexler, 2000), students' personality types and final grades in group organization and leadership development (Wingenbach, 2000), and women's self-perceived leadership skills in a collegiate agricultural education course (Townsend & Thorp, 1997; Thorp, Cummins, & Townsend, 1998).

Academic Department Leadership: Departments self-elect how their department is to be governed and what their role will be in the community and globe. Several investigators (Spotanski & Carter, 1993; Lindley, 1993) have researched how departments are led and what they should be doing. Spotanski and Carter assessed the leadership practices used by agricultural education department executive officers (DEOs) and then had the DEOs evaluate their own leadership practices. Lindley specifically investigated the role of land-grant universities in the global development of youth. Murphy and Townsend (1994) investigated the importance of leadership and ethics in agricultural education.

Experiential Leadership: Beyond formal leadership courses, college students can experience organizational leadership opportunities beyond the formal college classroom. Researchers have investigated how students involvement with both learning communities and agricultural youth organizations influenced their academic performance, retention, (Ball, Garton, & Dyer, 2001a, 2001b) and degree completion (Ball & Garton, 2002). Leadership skills possessed by college of agriculture graduates were researched by McKinley,

Birkenholz, and Stewart (1993) and by Birkenholz and Schumacher (1994).

Extension Education/4-H: Within the extension education/4-H leadership research area the main components of the cooperative extension system have been investigated. These components include county directors and commissioners, 4-H leaders and volunteers, and the 4-H program in terms of the members served, events, and overall program value.

Directors and Commissioners: County Cooperative Extension Directors/Commissioners play an integral part in running the extension program within their county. Since this position is critical in leading the program and working with all of the volunteers and agents, researchers have investigated key aspects of the director/commissioner position. Rudd (2000) utilized the Leadership Practices Inventory (LPI) instrument to determine leadership styles of Florida's county extension directors as perceived by themselves and others. Within Ohio, Rinehart and Smith (1994) used the perceptions of county commissioners, Ohio State University Extension Chairs and assessment center assessors to ascertain the leadership and managerial skills of their county commissioners. At the national level, Radhakrishna, Yoder, & Baggett (1993) investigated the self-perceived leadership behaviors and practices of county extension directors.

4-H Leaders and Volunteers: The 4-H program would not survive without adults investing valuable time into our youth. Understanding these adults' opinions and perceptions are critical in delivering a quality program. Volunteer 4-H leaders have been researched by Kwarteng, Smith, and Miller (1988) and Moss and Cormier (1988). In 2001, Hutchins, Seevers, and Van Leeuwen assessed the value of adult volunteer leaders to the New Mexico 4-H Program. The researchers concluded that, "New Mexico leaders felt that 4-H is a positive program that teaches youth life skills such as responsibility, leadership, and community service," and that "leader training is a positive part of the 4-H program and should be emphasized more" (p. 91).

4-H Youth Development: The 4-H program is organized to advance our youth and prepare them for life. Several researchers have studied the development of leadership life skills among 4-H members (Boyd, Herring, & Briers, 1992; Seevers & Dormody, 1994, 1995; Stafford, Boyd, & Lindner, 2003; Bruce, Boyd, & Dooley, 2003). Several researchers have investigated the value of competitive activities as perceived by 4-H member parents (Kieth & Vaughn, 1998) and the educational value of 4-H activities as perceived by Louisiana 4-H agents (Burnett, Johnson, & Hebert, 2000).

In their study of leadership life skill development among Texas 4-H members, Boyd, Herring, and Briers (1992) concluded that 4-H club members perceived themselves as having developed significantly greater levels of leadership life skills on all measurement scales than youth who had never participated in the 4-H club program. They also found that the level of participation in 4-H was related to the development of leadership life skills.

Community Leadership: As youth proceed into adulthood, they become contributing members of the community. Researchers have investigated the impact youth organizations have had on their participants' leadership abilities and positions taken within their respective communities. Further, researchers of community leadership have focused on community and industry leaders, adult leadership programs, and the interaction of communities and secondary agricultural education programs.

Community Leaders: Education prepares students to become life-long learners, as well as productive members of society. Brannon, Holley, and Key (1989) researched the impact of vocational agriculture and the FFA organization on community leadership. The researchers concluded that, "Community leaders surveyed who had participated in vocational agriculture felt that their leadership activities were effective in developing their leadership skills, contributed much to their success, and have been of value in their careers regardless of occupation" (p. 43). Brannon, Holley, and Key also found that community leaders who had participated in the agricultural education

and the FFA were more likely to be involved in community organizations, school organizations, church groups, agricultural groups, and educational groups than non-participants.

Luft (1989) studied the leadership ability of young, rural adults in North Dakota. Luft reported that the respondents felt good about their general and work-related leadership ability but were weakest in their speaking skills. One of the significant variables was respondents' level of education. Luft concluded that, "The amount of school completed by respondents made more difference on their perceived leadership ability than any other characteristic studied. The more school completed, the higher the perceived leadership ability" (p. 198).

Adult Leadership Programs: State leadership programs are designed to enhance and instill confidence within each participant's leadership abilities. Several follow-up studies have been conducted to evaluate these programs' effectiveness (Andelt & Dillon, 1993; Whent & Leising, 1992). In Nebraska, Andelt and Dillon completed a ten year follow-up while in California, Whent and Leising completed a twenty-year follow up. In a study of the Oklahoma agricultural leadership program, Kelsey and Wall (2003) concluded that, "The agricultural leadership program did create awareness among participants regarding the importance of RCD [rural community development] as stated in their objectives; however, it failed to move participants into action by producing community leaders" (p. 43) Outside of the state leadership programs, other adult organizations exist. Dormody, Seever, and Clason (1996) investigated teachers' perceptions of the goals achieved by adult organizations in agricultural education.

Conclusions

The number of leadership related research papers published in the *JAE* and *NAERC* was low when compared to other subject matter areas in agricultural education, making up only 5% of the articles published in both venues. This is similar to what Radhakrishna and Xu reported in 1997.

Radhakrishna and Xu reported that there were only 12 leadership related studies published in the *JAE* and 10 presented at the *NAERC* between 1986-1996. However, the number of leadership-related research studies published since 1996 has been increasing. Eight papers were published in both 2000 and 2001 and 10 papers were published in 2003.

The leading leadership researchers in agricultural education published fewer than 10 articles over the 16 years covered in this study. The top four researchers published from 5-7 articles each. Numerous researchers only published a single paper related to leadership development over the 16 year period. A few papers with similar titles and authors were published in both the *JAE* and *NAERC*. However, this number was not large enough to adversely affect the results of the study.

Only two of the leading researchers who published leadership related research from 1988-2003, Birkenholz and Stewart, were identified as prolific authors in the *JAE* from 1980-1989 (Radhakrishna & Jackson, 1995). The leading leadership researchers identified in this study are primarily early- and mid-career agricultural education researchers. This could be due to the increased emphasis on leadership development research since 1988 when many of these researchers were completing their graduate education programs.

Agricultural education/FFA and collegiate leadership were the most researched areas followed closely by extension education/4-H. Significantly fewer community leadership studies were published in either publication. Community leadership research could possibly be published in another research publication, other than the *JAE* and *NAERC*. This could also be true with the other leadership areas. Additional leadership-related studies could have been published in the *NACTA Journal*, the *Journal of Extension*, or the *Journal of Leadership Education*. As agricultural education programs at land-grant universities diversify, more community leadership research may be conducted and published in the future.

A review of the numerous researchers and the leadership subjects they have studied finds that there is a lack of focus and direction in leadership research. While some researchers have concentrated in one of the four focus areas: agricultural education/FFA, collegiate, extension education/4-H, or community, most are inconsistent in their efforts. Over the course of the 16 years investigated in this study, there was no researcher who had published more than three leadership-related papers that focused on one particular area of leadership development.

Recommendations

If the agricultural education profession is going to advance the knowledge base within leadership development it must adopt a plan for identifying and addressing pertinent issues in leadership to investigate. With accountability becoming more and more important, leadership programs at the local, state, and national level must be regularly studied to determine their relevance and long-term benefit to society.

Agricultural education researchers interested in studying leadership issues must begin a dialog and work closely together to identify the most important leadership questions. By combining resources across institutions and geographic areas, more focused and rigorous research into leadership development can be completed. Agricultural leadership researchers also need to reach across disciplines such as education, business, and military science to work with researchers in those arenas. The American Association for Agricultural Education should help to coordinate the efforts of leadership researchers and work with experiment station directors, as well as other funding agencies, to support and direct research into leadership concepts. It was evident that there is no list of research priorities in leadership to guide agricultural education researchers.

Williams (1991a, p. 8) wrote "If agricultural education research is not focused, the discipline will also lack focus. A discipline will be no stronger than its means for verifying existing knowledge and

creating new knowledge and the dissemination and application of that knowledge." The same is true for leadership research. If agricultural education is going to be a driving force in leadership development, it must develop a better focus to its research efforts.

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