

**Research Themes, Authors, and Methodologies in the *Journal of Leadership Education*:  
A Five-Year Look**

Leslie D. Edgar  
Assistant Professor  
University of Arkansas  
Department of Agricultural Extension and Education  
205 Agriculture Building  
Fayetteville, AR 72701  
(479) 575-6770 Phone  
(479) 575-2601 Fax  
ledgar@uark.edu

Barry Boyd  
Associate Professor and Associate Department Head  
Texas A&M University  
Department of Agricultural Leadership, Education, and Communications  
2116 TAMU  
College Station, TX 77843-2116  
(979) 862-3693 Phone  
(979) 845-6296 Fax  
b-boyd@tamu.edu

Gary E. Briers  
Professor  
Texas A&M University  
Department of Agricultural Leadership, Education, and Communications  
2116 TAMU  
College Station, TX 77843-2116  
(979) 458-3000  
(979) 845-6296 Fax  
g-briers@tamu.edu

Tracy Rutherford  
Assistant Professor  
Texas A&M University  
Department of Agricultural Leadership, Education, and Communications  
2116 TAMU  
College Station, TX 77843-2116  
(979) 458-2744 Phone  
(979) 845-6296 Fax  
trutherford@aged.tamu.edu

## **Research Themes, Authors, and Methodologies in the *Journal of Leadership Education*: A Five-Year Look**

### **Abstract**

*The Journal of Leadership Education (JOLE) is a new and primary outlet of leadership education research and professional scholarship—a claim verified by a survey of professionals in the field of agricultural education. The purpose of this study was to assess five years of JOLE to determine primary and secondary research theme areas, frequent primary and secondary research themes by year, prolific authorship, and research methods and types reported, using a mixed-methods design. Analyzed in this study were 45 articles with research methodologies published in JOLE from 2002 through 2006. Seventeen primary research theme areas and 23 secondary research theme areas were identified. The compilation list of primary and secondary research themes and frequent themes identified by year are reported. There were 83 JOLE authors identified; Christine Townsend (8.9%) was the most prolific author. A majority of the articles (64.4%) employed quantitative research methods, and historical methodology (20.0%) was the most common data collection measure. Research themes appear cyclic and add little to solving an apparent lack of research continuity. Research must continue to determine cycle depth and the influence on research in leadership education as an integrated specialization area of agricultural education. This research may be used comparatively with priorities areas identified in the National Research Agenda: Agricultural Education and Communication, 2007-2010 to determine where future research must be incorporated.*

### **Introduction**

The mission of agricultural education included charges to develop abilities in effective leadership as early as 1976 (Brown & Fritz, 1994). In 1989, the Strategic Plan for Agricultural Education identified the need to “amplify and expand the whole person concept of education, including leadership” (National Summit on Agricultural Education, p. 4). It is a charge of agricultural education to provide leadership education (Brown & Fritz, 1994).

According to Gardner (1990), leadership at all levels in society needs to be developed. Kouzes and Posner (1987; 1988) indicated that leadership is an observable, learnable set of practices, and effective leaders are constantly looking for ways to improve themselves and their departments. Universities have recognized the need and benefits that formal leadership instruction can offer in the classroom and in extracurricular programs (Hays, 1999).

Post-secondary institutions are fulfilling the need for leadership development via curricular and co-curricular offerings, and often leadership development is found in departments of agriculture (Fritz & Brown, 1998). The content of leadership courses hinges on several important considerations: students’ comfort level with the concept of leadership, identification of leadership elements, acceptance of leadership as a process, greater awareness of the practice of leadership, establishment of leadership purpose, development of a personal leadership approach, enhancement of analytical skills, and sharing new and emerging leadership theories (Lewis, 1995; Watt, 1995; Wren, 1994). Leadership education also encompasses agricultural educators who recognize the need to implement strategies to be leaders and/or effectively educate students to develop into leaders who are able to effectively guide and direct future industry (Birkenholz &

Schumacher, 1993). Leadership by its nature is multidisciplinary, and leadership education often flows over into other disciplines. In the *National Research Agenda [NRA]: Agricultural Education and Communication, 2007-2010*, leadership education is identified as one of the five integrated specialization areas that drive agricultural education today (Osborne, n.d.).

Leadership scholars have warned organizations to ensure their survival in rapidly changing times by becoming learning- or knowledge-based organizations that foster growth and creativity (Bridges, 1996; Senge, 1990). Successful organizations in the 21st century will be discernible by their ability to learn together (Senge, 1990). The changing organizational structure of higher education relies on greater faculty input and reflection in decision-making (Ellsworth & Iorizzo, 2001).

Since the 1990s, rapid growth in research and publishing activities under the broad umbrella of agricultural education has resulted in enormous growth of agricultural literature (Radhakrishna & Jackson, 1995), and new research outlets have been created. The *Journal of Leadership Education (JOLE)* was created in 2002. Mannebach (1990) indicated that changes have occurred at an unprecedented rate in agricultural education. Research needs to be conducted regarding leadership needs in agricultural education to prioritize future research, training and development (Spotanski & Carter, 1993).

With many leadership education programs housed in university departments of agricultural education, it is increasingly important to find ways to collaborate with and within these units while strengthening our own unique research agendas. In 1993, Newcomb recognized the need for increasing collaborative efforts in agricultural education programs at the university level. He encouraged universities to broaden programs by offering leadership education, agricultural communications, extension education, and international development, and further add depth to teacher education programs. It seems natural that if leadership units are housed in agricultural education departments that initiatives should be formed to incorporate leadership development and education courses into agricultural education programs. However, if leadership education research is not perceived to be at a level equal to agricultural education research, it may be challenging to further form and build successful collaborations in the five integrated specialization areas outlined in the *NRA*. The *NRA* was created as a guide for developing futuristic research (Osborne, n.d.). Yet, how can we be sure where we are headed with research, and if the direction is adequate and appropriate, if we are unclear as to where we have been?

The need for this research is grounded in research by Ball and Knobloch (2005); Baker, Shinn, and Briers (2007); Crunkilton (1988); Doerfert (2003); Knight (1984); Miller, Stewart, and West (2006); Newcomb (1993); Radhakrishna and Xu (1997); Tucker (2004); and Whiting (2002). Knight wrote that a discipline's journals and magazines are good indicators of research priorities in the discipline. Radhakrishna and Xu found that research journal articles are indicators of the profession's scientific activity, philosophy, and application. Ball and Knobloch indicated that it is critical for practitioners to examine the knowledge base of the field to allow the profession to reflect upon actions and ultimately improve the discipline. Crunkilton identified the need for agricultural researchers to know where research can and should go in the pursuit to develop empirical knowledge. Doerfert, Tucker, and Whiting called on researchers to examine their discipline, focus research, create cohesion, and develop goal-oriented visions. Miller,

Stewart and West identified the need to review literature to maintain a clear sense of the discipline's research agenda. Baker, Shinn and Briers indicated the need to examine core knowledge objects and knowledge domains. The expressed need to focus disciplines, examine their knowledge base, and review their literature creates a call for the use of a holistic approach to examine research in leadership education and the other integrated specialization areas as outlined in the *NRA*.

Due to the infancy of *JOLE*, it is imperative to incorporate a holistic examination of the critical components of leadership education research. This examination will allow the discipline to deepen its understanding of the current state of research and take a futuristic approach to knowledge pursuit, development and examination. The integrated specialization area of leadership education can examine many components: research theme areas, variety in research theme areas by year, prolifically-published authors, and types of research being conducted. Because a discipline's journals are indicators of research priorities (Knight, 1984), by analyzing research journal articles it should be possible to analyze dimensions of leadership education in *JOLE*. Understanding research occurring in leadership education can assist the agricultural education discipline and other integrated specialization areas in identifying past literary contexts, and determining if past research initiatives are fulfilling research needs as identified in the *NRA*. This study assisted in the creation of a leadership education research baseline by determining the experience-base of research occurring in *JOLE*.

### **Conceptual Framework**

The future of leadership education depends on many variables, and application and acquisition of new knowledge via research is extremely important (Dyer, Haase-Wittler, & Washburn, 2003). Yet, the quality of research in agricultural education, including the integrated specialization area of leadership education, has been questioned for decades, and in some cases it has been identified as inferior to other disciplines (Buriak & Shinn, 1993; Dyer et al., 2003; Radhakrishna & Xu, 1997; Silva-Guerrero & Sutphin, 1990; Warmbrod, 1986).

The conceptual framework of the study (Figure 1) was grounded in work by scholars in five integrated specialization areas associated with agricultural education. Several researchers have completed various components of journal analysis in agricultural education: familiarity and quality of journals and importance of faculty publishing (Miller et al., 2006; Radhakrishna, 1995; Radhakrishna & Jackson, 1993); research theme areas (Buriak & Shinn, 1993; Dyer et al., 2003; Miller, Stewart, & West, 2006; Moore, 1991; Radhakrishna & Xu, 1997; Silva-Guerrero & Sutphin, 1990); prolific authors (Harder & Roberts, 2006; Radhakrishna & Jackson, 1995; Radhakrishna, Jackson, & Eaton, 1992); and statistical methods used (Bowen, Rollins, Baggett, & Miller, 1990; Dyer et al., 2003; Mannenbach, McKenna, & Pfau, 1984).

This study examined articles with research methodologies published in *JOLE* from its inception in 2002 to 2006. The study assessed primary and secondary research theme areas, authorship, and research methods and types using a content analysis approach. This research is the first step in identifying a research experience-base framework in leadership education, using the premier leadership education journal, as identified in a field study. Conceptually, this research examined leadership educations' current research role in *JOLE*. The experience-base,

from this research, can then be used as a framework to suggest future research strategies when compared to the *NRA*.

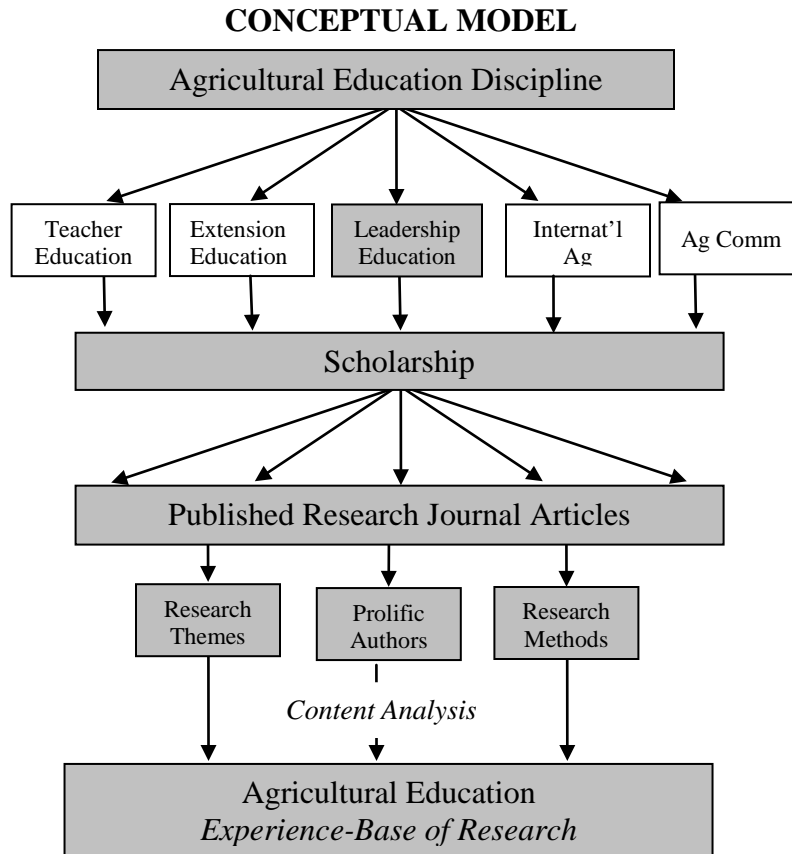


Figure 1. Conceptual base of the study.

### Purpose and Objectives

The purposes of this study, which was part of a larger study, were to review research published in the *Journal of Leadership Education* from 2002 to 2006 and to examine the status of the journal to provide a base from which to direct future research. *JOLE* is a research journal with authors who are university and college faculty-based as well as practitioner-based. The specific objective was to describe and synthesize published research in *JOLE* during the five year period by (a) identifying primary and secondary research themes in published research articles; (b) identifying primary and secondary research theme areas among research articles published by year; (c) identifying the most prolific authors; and (d) identifying research methods and designs.

### Research Methods and Procedures

This study employed a mixed-methods content analysis design. Content analysis as a research method has existed for decades, and the best content-analytic studies use mixed-methods methodology (Weber, 1990). Content analysis can be used to give researchers insight into problems or hypotheses that can then be tested by more direct methods. Content analysis is a

systematic, replicable technique for compressing many words of text into fewer content categories based on explicit rules of coding (Berelson, 1952; Krippendorff, 1980; Weber, 1990).

Content validity was maintained using both previous research as a guide and a field study to focus the research. Baker, Shinn, and Briers (2007) identified 104 individuals as active agricultural education research authors. A field questionnaire was developed and sent to 96 of those authors with valid email addresses. The contacted authors were asked to identify premier journals and to validate or add to research theme categories. Research theme categories were created based on previous content analyses of journals in the specializations of leadership education, teacher education, extension education, international agricultural education, and agricultural communications. These categories were provided to the pilot study, and it was the respondents' responsibility to compress or expound on research theme areas. The pilot study identified 37 research theme areas for the five specialization areas identified in the *NRA*. Dillman's (2000) Tailored Design Method was used, and 62 of 96 possible respondents completed the questionnaire, yielding a 65% response rate.

Research journal articles from 2002 to 2006 in the identified premier journal, the *Journal of Leadership Education*, were used as the frame for the study. The main focus of each article (knowledge-base) was coded as the primary research theme area. The most prevalent supporting theme (conceptual-base) was identified as the secondary theme of each article. The principal investigator and a peer independently reviewed the material and formed a checklist of information required during the review of each journal article. The researchers compared notes and reconciled differences on their initial checklists via negotiations. Researchers used a consolidated checklist to independently apply coding. The researchers then checked for agreement in coding; if reliability was not acceptable, then the previous steps were repeated. Once reliability had been established, the coding was applied on a large-scale basis. The final stage was a periodic quality control check (Weber, 1990). Inter-coder reliability was completed, with at least 10% overlap for the reliability test. Final reliability was calculated using a random sample of 5% of the analyzed articles. Reliability was assessed using Spearman's rho. Reliabilities met or exceeded the minimum standard of .70 (Bowen et al., 1990; Tuckman, 1999).

## Findings

The *Journal of Leadership Education* was identified in the field study as a premier research journal by 41% of the respondents. All *JOLE* articles with research methodologies published ( $N=45$  articles) from 2002 to 2006 were analyzed. Primary research themes identified in *JOLE* are shown in Table 1. There were 17 primary research themes identified in *JOLE* in the five-year content analysis. The most frequently identified primary research theme was leadership development (31.1%). The second most frequent primary research theme was leadership education, identified in 24.4% of the *JOLE* research articles. Those primary research theme areas identified in *JOLE* research articles 6.7% or fewer times are identified in the table.

Table 1

*Primary Research Themes Identified in the Journal of Leadership Education 2002–2006*  
(*N* = 45)

Research Theme	<i>f</i>	<i>P</i>
Leadership Development	14	31.1
Leadership Education	11	24.4
Service & Experiential Learning	3	6.7
Youth Leadership & Development	3	6.7
Volunteer Development & Leadership	2	4.4
Academic Programs	1	2.2
Career Development & Assessment	1	2.2
Communication Management	1	2.2
Diffusion of Innovation	1	2.2
Evaluation	1	2.2
Formal & Informal Teaching Approaches	1	2.2
Instructional & Program Delivery Approaches	1	2.2
Leadership Management	1	2.2
Needs Assessment	1	2.2
Professional Development	1	2.2
Research (methods and models)	1	2.2
Teacher Preparation & Competence	1	2.2

Secondary research themes identified in *JOLE* are displayed in Table 2. There were 23 secondary research theme areas identified. The most frequently identified secondary research theme area was leadership education (17.8%). The second most frequently identified secondary research theme areas were academic programs and leadership development, identified in 8.9% of the articles. Those secondary research themes identified 6.7% or fewer are identified in the table.

Table 2

*Secondary Research Themes Identified in the Journal of Leadership Education 2002–2006*  
(*N* = 45)

Research Theme	<i>f</i>	<i>P</i>
Leadership Education	8	17.8
Academic Programs	4	8.9
Leadership Development	4	8.9
Evaluation	3	6.7
Organizational Development & Leadership	3	6.7
Accountability	2	4.4
Diversity (culture, ethnicity, gender)	2	4.4
Formal & Informal Teaching Approaches	2	4.4
Skill Development & Competencies	2	4.4

Table 2 (continued)

Research Theme	<i>f</i>	<i>P</i>
Youth Leadership & Development	2	4.4
Career Development & Assessment	1	2.2
Community Development & Leadership	1	2.2
Critical Thinking	1	2.2
Curriculum & Program Development	1	2.2
Framing	1	2.2
Globalization & Internationalization	1	2.2
Information Sources & Technology	1	2.2
Instructional & Program Delivery Approaches	1	2.2
Leadership Management	1	2.2
Needs Assessment	1	2.2
Processes, Principles, & Styles of Learning	1	2.2
Quality of Life & Life Skills	1	2.2
Volunteer Development & Leadership	1	2.2

Table 3 shows the most frequently-occurring primary research themes by year. Theme details, frequencies, and percentages can be seen in the table.

Table 3

*Most Identified Primary Research Themes in Journal of Leadership Education by Year (N = 45)*

Year	Research Theme	<i>n</i>	<i>f</i>	<i>P</i>
2002	Leadership Education	11	5	45.5
2003	Leadership Development	5	2	40.0
2004	Leadership Development	11	4	36.4
2005	Leadership Development	11	4	36.4
2006	Leadership Education	12	5	41.7

Table 4 outlines the frequently used secondary research themes, identified in the *JOLE*, by year. Theme details, frequencies, and percentages can be seen in the table.

Table 4

*Most Identified Secondary Research Themes in Journal of Leadership Education by Year*  
(*N* = 45)

Year	Research Theme	<i>n</i>	<i>f</i>	<i>P</i>
2002	Academic Programs Leadership Education	11	2	18.2
2003	Diversity (culture, ethnicity, gender) Globalization and Internationalization Leadership Education Needs Assessment Organizational Development and Leadership	5	1	20.0
2004	Leadership Education	11	2	18.2
2005	Leadership Education	11	2	18.2
2006	Leadership Education	12	3	25.0

The prolific authors identified in *JOLE* are identified in Table 5. No distinction was made between lead and supporting authorship. There were 83 authors (duplicated count) identified in the 45 analyzed *JOLE* articles. Christine Townsend was the most prolific author in the journal, authoring or co-authoring 4 of the 45 articles (8.9%). Additional prolific *JOLE* authors are identified in the table.

Table 5

*Prolific Authorship in the Journal of Leadership Education 2002–2006 (N of Authors = 83, N of Articles = 45)*

Author	<i>f</i>	<i>P</i> of Authors	<i>P</i> of Articles
Townsend, Christine D.	4	4.8	8.9
Crawford, C. B.	3	3.6	6.7
Fritz, Susan M.	3	3.6	6.7
Hoover, Tracy S.	3	3.6	6.7
Barbuto, John E., Jr.	2	2.4	4.4
Bruce, Jacklyn A.	2	2.4	4.4
Culp, Kenneth, III	2	2.4	4.4
Dooley, Kim E.	2	2.4	4.4
McCormick, Michael J.	2	2.4	4.4
Rohs, Frederick R	2	2.4	4.4
Strohkirch, C. Sue	2	2.4	4.4
Webster, Nicole S.	2	2.4	4.4
White, Belinda Johnson	2	2.4	4.4
Williams, Jennifer R.	2	2.4	4.4

Research methods used in *JOLE* are identified in Table 6. Quantitative research methods were the most common (64.4%), followed by qualitative (28.9%); the least often used research methods were mixed qualitative and quantitative methods (6.7%).

Research methods used in *JOLE* were identified. Quantitative research methods were the most common at 64.4% (29 out of 45 articles), followed by qualitative in 28.9% (13 out of 45 articles); the least often used research methods were mixed qualitative and quantitative methods (6.7%; 3 out of 45 articles). Research designs used in the 45 analyzed articles published in the *JOLE* are outlined in Table 6. Historical designs were the most frequently used research design (20.0%). Surveys were used in 15.6% of the published analyzed research. Additional research designs and procedures, in *JOLE* research articles, are identified in the table.

Table 6

*Research Method Types Used in the Journal of Leadership Education 2002–2006 (N = 45)*

Method Type	<i>f</i>	<i>P</i>
Historical	9	20.0
Surveys	7	15.6
Correlation	5	11.1
Experimental	5	11.1
Evaluation	5	11.1
Case Study	3	6.7
Content Analysis	2	4.4
Interviews	2	4.4
Open-ended Questions/Reflections	2	4.4
Holistic	1	2.2
Interviews with Referential Adequacy Material	1	2.2
Interviews and Observations	1	2.2
Observations and Document Analysis	1	2.2
Survey and Focus Groups	1	2.2

### Conclusions

The *Journal of Leadership Education* was identified as a premier journal for reporting leadership education research. Research in *JOLE* is adding to the scope and topography of discovery occurring in the field. In articles published, variety in research theme areas was seen. The breadth of research theme areas identified appear to contribute a lack of continuity in discovery, with 17 research themes identified as primary themes, and 23 research themes identified as secondary themes in the 45 analyzed articles. Leadership development and education dominated the primary research theme areas, both in category and by year. Leadership education was also the most frequently identified secondary research theme area. Secondary research theme variety was seen in 2002 and 2003; however, leadership education dominated from 2004 to 2006. Research themes were cyclic, moving between primary and secondary, and moving out of primary and secondary for a time before cycling back in. An example of this

phenomenon is the theme area “leadership education.” It is seen as the most frequent primary and secondary research theme in 2002. Then it is the most frequent secondary theme in 2003 through 2006 and, again, as the most frequent primary theme in 2006. These apparent research cycles may be indicators of the breadth of research occurring in the field. But are they indicators of research depth? Frequent research themes may be indicators of what leadership educators’ value in terms of research priorities.

Few researchers contribute programmatically or consistently to leadership education research as seen in *JOLE*; Townsend reported research in slightly less than one article per year, and others much less. *JOLE* is a research journal with authors who are faculty and practitioner-based; yet, research publications in *JOLE* are clearly dominated by faculty rather than practitioners. Unlike other research journals in the agricultural education field, *JOLE* does not require membership for publication acceptance. This allows anyone to publish in the journal and may reduce author domination. Quantitative research employing historical methods were most prevalent in leadership education. Based on research methods and designs, leadership education research lacks diversity of research methodologies and scope and, perhaps, depth and quality -- if one assumes that depth and quality are indicated by methods that move toward cause and effect relationships.

This study was an attempt to establish an experience-base in research occurring in leadership education. It is critical to create an experience-base in order to complete a comprehensive and holistic examination of a benchmark, such as the *NRA*. Ball and Knobloch (2005) and others have indicated the explicit need to improve the agricultural education discipline, and leadership education research adds to the discipline. We must make every effort to understand how the field of leadership education affects agricultural education.

### **Discussion and Implications**

Baker, Shinn, and Briers (2007) issued a specific call to examine the knowledge domains of agricultural education. Miller, Stewart, and West (2006) identified the need to review literature to maintain a clear sense of the discipline’s research agenda. Doerfert (2003), Tucker (2004), and Whiting (2002) outlined the need for creating research focus, cohesion, and goal-oriented vision. This study was an attempt to assist with each of the above identified areas. The frame for this research focused on leadership education’s role in agricultural education.

This research identified excessive variety in research theme areas when looking at the minimal number of published research articles in *JOLE*; 23 research themes identified within the five years of analyzed articles. Excessive variety in research themes may be due to leadership educators and researchers’ attempt to find their place. Although leadership education and development as academic programs and research are expanding, leadership education programs and research have struggled to find a home in academic units and research agendas. Leadership education may still be searching to find where it fits in the context of agricultural education and other disciplines. Many faculty contributing research to *JOLE* are not housed in academic units or universities associated with agriculture. However, *JOLE* was identified as a premier journal in the agricultural education discipline. Although leadership education programs have increased over the past two decades in academic units, the discipline still has relatively few faculty members conducting research in surfeit contextual and knowledge base areas based on the *JOLE*

analysis. The relatively small number of faculty members attempting to cover the numerous research priority areas of the discipline may be adding to research breadth, but it is unclear how this variety affects discipline depth. It is also highly likely that *JOLE* is not the only premier leadership education journal, but it was identified in this study as a premier journal.

Furthermore, this research discovered that relatively few researchers add consistently to the scope and topography of leadership education research; no authors dominated the journal. Because researchers bring with them a variety of interests in both research topics and strategies, this finding is an important component in research stability and diversity. Would leadership educators and researchers benefit from prolific authors assisting graduate students, new faculty, and practitioners interested in developing and producing personal research initiatives? Can we better utilize prolific authors by highlighting their areas of expertise and using them as specialists? Would this allow us to move from a generalist approach in examining knowledge to becoming research area (theme) experts?

Knight (1984) and Radhakrishna and Xu (1997) indicated that published research journal articles are indicators of the profession's current state. Although this research supports Knight and Radhakrishna and Xu, it also provides a note of caution and an evident need for more variety in research methodology and design in leadership education research. The findings of this study indicate that a majority of research in leadership education used historical and survey research methods. If research occurring in *JOLE*, over the past five years, is indicative of all research in leadership education, there is a clear need to focus research themes while improving and diversifying methodological research strategies beyond historical and survey research. Criticisms have been made regarding research rigor and diversity in agricultural education; leadership education is often grouped in this field of study, and its research may be contributing to those critiques. There is a need to engage in more rigorous research methodologies to answer the "why" questions in addition to the "what is."

In 1993, Newcomb identified the need to transform university agricultural education programs and encouraged universities to broaden programs by offering leadership programs, extension education, agricultural communications, and international development, and to add depth to teacher education programs. As faculty members in leadership education continue to forge new alliances and integrations with agricultural education, it is clear that our research must be at or above the current level of research in agricultural education. This study was a first step in determining the current state of research in leadership education. This research attempted to outline research priorities, strategies, and designs used during the past five years; it calls for a comparison of the identified experience-base to a futuristic framework, such as the *National Research Agenda: Agricultural Education and Communication, 2007-2010* (Osborne, n.d.). Although research work in leadership education feeds into multiple leadership journals, our peers and others associated with agricultural education identified *JOLE* as a premier journal. If these individuals are looking at *JOLE* to assess our current level of research productivity and rigor, would they be pleased?

## Recommendations

The *Journal of Leadership Education* should expand the breadth/number of researchers consistently publishing articles. The journal might create thematic issues to reduce research fragmentation; it should also increase the number of research articles for each issue. Leadership education as a profession and as practice must continue to reflect upon those actions that ultimately improve the field. It is imperative that professionals in leadership education improve research methodologies while increasing continuity in research theme areas. This study calls for future research to examine the essence of leadership education and its roles in understanding human dimensions of agriculture. It is imperative for us to understand if today's research is adding to the depth of our "well" of research and not merely to the breadth. Our research should strive for depth, richness, and impact. We must continue to deepen our "well" of knowledge and not just expand our "pool." As an area of practice, do we have the volume and quality of theoretical underpinnings and fundamental works needed to support us as we expand the broadness of our "well"? Or do we need to continue to move deeper before we expand in width? Reflections regarding efforts to improve and diversify the discipline must continue. Additional research must be completed to expand research themes identified in this study. Broader research themes would assist leadership education in determining how research is incorporated into agricultural education and other specialized integration areas, as well as in other disciplines and research initiatives.

A pattern appears to exist in the primary and secondary research themes identified in this study. Further research should be conducted to determine the degrees of research theme cycles, meaningfulness of cycles, and how cycles affect leadership education both as an area of scholarship and as an area of practice. Leadership education researchers must diversify their methodological research portfolios to include variety in research methods and designs. Additional research should be completed to determine the depth and rigor of historical and survey methods used in our research. Research must continue to determine whether current research methodologies are serving the leadership education and the agricultural education discipline, in an effort to advance its scholarship. Further research must be completed to provide methods and standards for exceptional and rigorous research in leadership education.

Reflections regarding efforts to improve and integrate leadership education into agricultural education departments or units must continue. Additional research must be completed to determine the level of breadth and depth of research themes identified in this study, and how/if these themes are affecting research occurring in the integrated specialization area of leadership education. Current leadership education research (experience-base) must be compared to emerging research priorities for leadership education. By using a benchmark, such as the *National Research Agenda: Agricultural Education and Communication 2007–2010* (Osborne, n.d.), leadership education can better determine if past research is supporting emerging research priority areas and determine where adjustments must be made.

## References

- Baker, M., Shinn, G. C., & Briers, G. (2007). Defining doctoral study in agricultural education-2010: Perceptions of U.S. scholars engaged in agricultural education. *Proceedings of the 2007 AAAE Research Conference*. Minneapolis, MN. Retrieved July 2, 2007, from [http://aaae.okstate.edu/proceedings/2007/IndividualPapers/168-Baker\\_etal.pdf](http://aaae.okstate.edu/proceedings/2007/IndividualPapers/168-Baker_etal.pdf)
- Ball, A. L., & Knobloch, N. A. (2005). A document analysis of the pedagogical knowledge espoused in agriculture teaching method courses. *Journal of Agricultural Education*, 46(2), 47-57.
- Berelson, B. (1952). *Content analysis in communications research*. Glencoe: Free Press.
- Bowen, B. E., Rollins, T. J., Baggett, C. D., & Miller, J. P. (1990). Statistical procedures used in publishing agricultural education research. *Proceedings from the 44th Eastern Region Agricultural Education Research Meeting*, 64-71. New Brunswick, NJ.
- Bridges, W. (1996). Leading the de-jobbed organization. In F. Hesselbein, M. Goldsmith & R. Beckhard (Eds.), p. 1-24. *Leader of the future*. San Francisco: Jossey-Bass.
- Brown, F. W., & Fritz, S. M. (1994). Determining the breadth of leadership and human resource management/development offerings in post-secondary departments of agricultural education. *Journal of Agricultural Education*, 35(3), 1-5.
- Buriak, P., & Shinn, G. C. (1993). Structuring research for agricultural education: A national Delphi involving internal experts. *Journal of Agricultural Education*, 32(2), 31-36.
- Crunkilton, J. (1988). Directing future research efforts in agricultural and extension education through a matrix. *Proceedings of the National Agricultural Education Research Meeting*. St. Louis, MO.
- Dillman, D. A. (2000). *Mail and Internet surveys: The tailored design method* (2nd ed.). New York: John Wiley & Sons.
- Doerfert, D. L. (2003). Skate to where others are heading. *Journal of Applied Communications*, 87(4), 39-41.
- Dyer, J. E., Haase-Wittler, P. S., & Washburn, S. G. (2003). Structuring agricultural education research using conceptual and theoretical frameworks. *Journal of Agricultural Education*, 44(2), 61-74.
- Ellsworth, J. B., & Iorizzo, L. J. (2001). Distance training at the U.S. Army intelligence center. In Z. L. Berge (Ed.), *Sustaining distance training* (pp. 31-47). San Francisco: Jossey-Bass.
- Fritz, S. M., & Brown, F. W. (1998). Leadership education courses and programs in departments of agricultural education. *Journal of Agricultural Education*, 39(3), 57-62.

- Gardner, J. W. (1990). *On leadership*. New York: The Free Press.
- Harder, A., & Roberts, T. G. (2006). *Seeing the forest for the trees: Authorship in the Journal of Agricultural Education*. Poster session presented at the Southern Region Agricultural Education Meeting. Orlando, FL.
- Hays, M. (1999). *The transfer of leadership skills from college to post-college experiences*. Unpublished master's thesis, Texas A&M University.
- Knight, J. A. (1984). A content analysis of the Agricultural Education Magazine, 1929-1984. *Proceedings of the 15th National Agricultural Education Research Meeting*. New Orleans, LA.
- Kouzes, J. M., and Posner, B. Z. (1987). *The leadership challenge*. San Francisco: Jossey-Bass, Inc.
- Kouzes, J. M., and Posner, B. Z. (1988). *The leadership challenge: How to get extraordinary things done in organizations*. San Francisco: Jossey Bass.
- Krippendorff, K. (1980). *Content analysis: An introduction to its methodology*. Beverly Hills, CA: Sage Publications.
- Lewis, C. T. (1995). The grammar of leadership education. *Journal of Leadership Studies*, 2(1), 3-12.
- Lindner, J. R., Murphy, T. H., & Briers, G. E. (2001). Handling nonresponse in social science research. *Journal of Agricultural Education*, 42(4), 43-53.
- Mannebach, A. J. (1990). A vision and a mission for agricultural education. *The Agricultural Education Magazine*, 62, 4-5.
- Mannebach, A. J., McKenna, P., & Pfau, G. (1984). An analysis of research methodology reported in agricultural education 1974-1982. *Proceedings of the 15th National Agricultural Education Research Meeting*. New Orleans, LA.
- Miller, J. D., Stewart, D. M., & West, L. M. (2006). *Themes, authors, and citations in the Journal of Applied Communications, 2000-2004*. Paper presented at the SAAS Agricultural Communications Meeting. Orlando, FL.
- Moore, G. (1991). How firm is the foundation? A look at the knowledge base in agricultural education research. *Proceedings of the 18th Annual National Agricultural Education Research Meeting*, 151-157. Orlando, CA.
- National Summit on Agricultural Education (1989). *The strategy plan for agricultural education*. Alexandria, VA: The National Council for Agricultural Education.

- Neuendorf, K. A. (2002). *The content analysis guidebook*. Thousand Oaks: Sage Publications, Inc.
- Newcomb, L. H. (1993). Transforming university programs of agricultural education. *Journal of Agricultural Education*, 34(1), 1-10.
- Osborne, E. W. (Ed.) (n.d.). *National research agenda: Agricultural education and communication, 2007-2010*. Gainesville: University of Florida, Department of Agricultural Education and Communication.
- Radhakrishna, R. B. (1995). Core journals used by agricultural and extension educators. *Journal of Agricultural Education*, 36(4), 48-54.
- Radhakrishna, R. B., Eaton, D., Conroy, C., & Jackson, G. (1994). An empirical analysis of literature cited in the *Journal of Agricultural Education*. *Journal of Agricultural Education*, 35(1), 61-65.
- Radhakrishna, R. B., & Jackson, G. B. (1993). Familiarity and quality of journals and importance of faculty publishing as perceived by agricultural and extension education department heads. *Proceedings of the 47th Eastern Region Agricultural Education Research Meeting*, 40-48. Woodstock, VT.
- Radhakrishna, R. B., & Jackson, G. B. (1995). Prolific authors in the *Journal of Agricultural Education*: A review of the eighties. *Journal of Agricultural Education*, 36(1), 55-63.
- Radhakrishna, R. B., Jackson, G. B., & Eaton, D. W. (1992). Characteristics of literature cited in the *Journal of Agricultural Education*: An empirical study. *Proceedings of the 19th Annual National Agricultural Education Research Meeting*, 272-278. St. Louis, MO.
- Radhakrishna, R. B., & Xu, W. (1997). A review of subject matter topics researched in agricultural and extension education. *Journal of Agricultural Education*, 38(3), 59-69.
- Senge, P. (1990). *The fifth discipline*. New York: Doubleday.
- Silva-Guerrero, L., & Sutphin, H. D. (1990). Priorities for research in agricultural education. *Journal of Agricultural Education*, 31(3), 2-13.
- Spotanski, D. R., & Carter, R. I. (1993). Self evaluation of leadership practices and behaviors used by department executive officers in agricultural education. *Journal of Agricultural Education*, 34(3), 17-25.
- Tucker, M. (2004). Reply to Doerfert: A call to “skate” with caution. *Journal of Applied Communications*, 88(4), 55-57.

- Warmbrod, J. R. (1986). Priorities for continuing progress in research in agricultural education. *Proceedings of the Southern Regional Conference in Agricultural Education*. Little Rock, AR.
- Watt, W. M. (1995). Teaching essential behaviors of leadership: A rationale and syllabus. *The Journal of Leadership Studies*, 2(1), 149-161.
- Weber, R. P. (1990). *Basic content analysis*. Iowa City: University of Iowa.
- Wren, J. T. (1994). Teaching leadership: The art of the possible. *The Journal of Leadership Studies*, 1(2), 71-93.