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Characteristics of Agricultural Communications Undergraduate Programs

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Characteristics of Agricultural Communications
Undergraduate Programs

Characteristics of Agricultural Communications
Undergraduate Programs

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Science in Agricultural and Extension Education

by

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The Ohio State University
Bachelor of Science in Agriculture, 2012

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This thesis is approved for recommendation to the Graduate Council.

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Abstract

This study was designed to characterize agricultural communications undergraduate programs nationwide. A total of 41 undergraduate agricultural communications programs were identified via the National ACT database, Internet searches, and previous academic program research. Objectives included creating an accounting of existing programs, a description of those programs, identifying trends in program demographics, curriculum development and identifying top programs. This study employed a census approach and used a mixed methods design. A mixed-methods survey instrument was used to collect the data. The survey included questions to gain both qualitative and quantitative data to meet this study's objectives. The quantitative data were analyzed via descriptive statistics, and qualitative data were analyzed via thematic analysis, which included open and axial coding. A total of 26 respondents from undergraduate agricultural communications programs participated in this study. An increase in the number of academic programs across the U.S. was observed, suggesting an increase in popularity and student demand, which is most likely a result of an increase in industry demand for agricultural communications graduates. Current faculty projected an increase in enrollment, driven by industry needs. This study confirmed agricultural communications programs use teaching methods aligned with Bloom's Taxonomy. The most common teaching methods in those courses were problem-based learning, experiential/capstone/internships, and collaborative learning. In comparison with data from previous similar studies, this study showed an increase in the use of program advisory committees to guide curriculum and instruction. Faculty's opinions regarding the value of a national accreditation program for the discipline were mixed. Recommendations for practice include faculty continuing to employ teaching methods focus on higher-order cognitive skills. Internship and capstone courses are vital for program success.

Program advisory committees are standard nationwide and should continue to serve in advisory roles in growing programs across the country. Future studies characterizing the discipline should be conducted on a more frequent, standardized schedule, and improved participation in the study should be a goal. National curriculum studies should also be conducted to tie program characteristics and instructional methodologies to program success and to correlate program characteristics and demographics.

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girl” has never been so true. Also, thank you to my Grandma Carnes, who has and will always be, my number one fan. She is the one who always believes in me, cheers me on, and knows I can do anything I set my heart to.

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Table of Contents

| | |
|---|----|
| I. Introduction | 1 |
| Need for Study | 1 |
| Statement of the Problem..... | 1 |
| Purpose and Objectives of Study | 3 |
| Definitions of Key Terms | 3 |
| Assumptions..... | 4 |
| Limitations | 4 |
| II. Conceptual and Theoretical Framework | 6 |
| Agricultural Communication Courses | 8 |
| Program Development | 10 |
| Curriculum Development..... | 12 |
| Teaching Methods..... | 14 |
| Program Assessment..... | 16 |
| Theoretical Framework..... | 18 |
| Constructivism Theory..... | 21 |
| Academic Program Growth Model..... | 22 |
| Summary | 23 |
| III. Methodolgy | 24 |
| Purpose of Study..... | 24 |
| Design of Study..... | 24 |
| Subjects and Subject Selection | 25 |
| Instrumentation | 27 |
| Pilot Test..... | 28 |
| Data Collection Procedures..... | 28 |
| Data Analysis Methods..... | 29 |
| Credibility, Transferability, Dependability, and Confirmability | 30 |
| Summary | 31 |
| IV. Results..... | 32 |
| RO1: To create an updated accounting of existing national agricultural communications academic programs. | 32 |
| Updated Accounting of National Agricultural Communications Programs | 32 |
| RO2: To describe demographic characteristics of national agricultural communication programs. | 34 |
| Demographic Characteristics of Agricultural Communications Programs | 35 |
| RO3: To describe the status of agricultural communications programs' curriculum based on the following broad characteristics: courses offered and required, specific program development efforts, specific curriculum development efforts, and teaching methods. | 44 |
| Curriculum Development..... | 44 |
| Courses Offered and Required..... | 45 |
| Specific Courses..... | 48 |
| Teaching Methods..... | 49 |

| | |
|---|----|
| RO4: To identify trends in program demographics and curriculum development | 51 |
| Trends in Program Demographics | 51 |
| Program Development | 56 |
| Key Findings..... | 62 |
| Subjectivity Statement | 62 |
| V. Conclusions and Recommendations..... | 64 |
| Conclusions, Implications, and Recommendations | 64 |
| RO1: To create an updated accounting of existing national agricultural communications academic programs. | 64 |
| RO2: To describe demographic characteristics of national agricultural communication programs. | 65 |
| Program information..... | 66 |
| Student enrollment..... | 67 |
| RO3: To describe the status of agricultural communications programs’ curriculum based on the following broad characteristics: courses offered and required, specific program development efforts, specific curriculum development efforts, and teaching methods. | 67 |
| Agricultural communications courses..... | 68 |
| Internships and capstone courses | 69 |
| Advisory committees | 71 |
| RO4: To identify trends in program demographics and curriculum development. | 71 |
| Faculty gains and losses..... | 72 |
| Graduate employment..... | 72 |
| Program support..... | 72 |
| National accreditation system..... | 73 |
| Recommendations to Agricultural Communications Educators and Academic Programs | 74 |
| Recommendations for Further Research..... | 76 |
| VI. References..... | 78 |
| Vii. Appendix A..... | 84 |
| Viii. Appendix B..... | 85 |
| Ix. Appendix C..... | 94 |
| X. Appendix D..... | 95 |
| Xi. Appendix E | 96 |

List of Figures

| Figure | Page |
|---|-------------|
| 1. Levels of Thinking from Bloom's Taxonomy | 20 |
| 2. Current Student Enrollment Bar Graph | 43 |

List of Tables

| Table | Page |
|--|-------------|
| 1. Identified Agricultural Communications Programs | 32-34 |
| 2. Basic Program Information | 35-39 |
| 3. Age of Program and Degree Type | 40-41 |
| 4. Current, Historical, and Projected Enrollment | 42-43 |
| 5. Agricultural Communications Courses | 46-47 |
| 6. Culminating Experiential Learning Courses | 48 |
| 7. Teaching Methods Used in Agricultural Communications Programs | 50 |
| 8. Faculty Information | 52-53 |
| 9. Graduates and Employment Information | 55 |
| 10. Program Resources | 56 |
| 11. National Accreditation System | 59 |
| 12. Top Agricultural Communications Programs | 61 |

I. Introduction

Need for Study

A need exists in the academic discipline of agricultural communications to describe its undergraduate academic programs. Building upon a last similar comprehensive study (Weckman, Witham, & Telg, 2000a) conducted 14 years ago, this study identifies agricultural communications programs on a national level, describes programs, and identifies academic trends in agricultural communications. This study provides data to be used to guide future research and development in the discipline. The descriptive study provides faculty and administrators with empirical data they can use to strategically plan for future growth in their programs and curriculum. The results of this study offer an up-to-date analysis of trends, commonalities, and differences among existing programs and their curricula.

Statement of the Problem

With roots dating back more than 100 years in higher education, agricultural communications has developed and expanded from the early days of print media (Doerfert & Miller, 2006). The field of agricultural communications has grown relatively rapidly, as has the enrollment in academic programs (Weckman, Witham, & Telg, 2000a). Weckman, Witham, and Telg (2000a) found the number of students majoring in agricultural communications ranged from four students to 115 students, and the average number of students for departments was 36.63 students. In 1991, there were 30 agricultural communications programs across the country (Doerfert & Cepica, 1991). As the discipline grows and develops, the academic programs and the relatively small group of faculty who teach and conduct research in them are challenged to keep up with increasing responsibilities including teaching, advising, recruitment, mentoring,

club sponsorship, and placement of graduates (Weckman, Withham, & Telg, 2000). As they do, their programs grow, and the need for strategies to guide this growth grows as well.

New academic programs are emerging across the U.S. and now internationally, and established ones need consistent reevaluation. Doerfert and Miller (2006) noted agricultural communications curriculum must be systematically reviewed and updated to keep up with the evolution and needs of the academic programs to develop the soundest students possible entering the workforce. Twenty years ago, the suggestion was made by a group of agricultural communications industry leaders that the profession should review college curriculum every few years to “reassess and readdress the agricultural communications curriculum” (Terry, Vaughn, Vernon, Lockaby, Bailey-Evans, & Rehrman, 1994, p. 24). Terry et al. (1994) studied the opinions of leaders from the agricultural communications profession and established collegiate agricultural communications coursework should include coursework in 28 disciplines and 89 specific competencies. These recommendations have guided program growth at some institutions for two decades. However, in order to meet the needs of programs and students across the country, undergraduate agricultural communications academic programs need to be described and reassessed on a regular basis.

Numerous institutional, regional, and national agricultural communications curriculum studies have been conducted (Bailey-Evans 1994; Ettredge & Bellah 2008; Fryar & Miller, 2006; Irani & Scherler 2002; Kroupa & Evans 1973; Reisner 1990; Sprecker & Rudd 1997). Weckman, Withham, and Telg’s (2000b) southern region study set the foundation for a survey conducted nationally about agricultural communications undergraduate programs. More recently, Morgan (2012) noted with the changes to the agricultural communications profession and technologies, the field needs to conduct frequent evaluation of curriculum. Literature fails

to note a more recent comprehensive assessment of agricultural communications undergraduate programs since 2000. Therefore, in order to direct the future growth of the discipline, an accurate and recent characterization of national programs is necessary.

Purpose and Objectives of Study

The purpose of this study is to describe and characterize agricultural communications undergraduate programs. The following research objectives will guide the study:

1. To create an updated accounting of existing national agricultural communications academic programs.
2. To describe demographic characteristics of national agricultural communication programs.
3. To describe the status of agricultural communications programs' curriculum based on the following broad characteristics:
 - a. Courses offered and required
 - b. Specific program development efforts
 - c. Specific curriculum development efforts
 - d. Teaching methods
4. To identify trends in program demographics and curriculum development.
5. To identify those agricultural communications academic programs held in the highest professional regard from peers across the country.

Definitions of Key Terms

1. **Agricultural communications program:** is an academic program of study which is a part of an “emerging field, both part of the ‘agriculture’ and ‘communication’ literature” (Zumalt, 2007, p. 43). The operational definition for this study is any undergraduate

program with majors, minors, concentration/specialization/emphasis/option known as agricultural communication, agricultural journalism, agricultural communication and leadership, and agricultural communication and development programs.

2. **Curriculum:** “the sum of learning activities and experiences that a student has under the auspices or direction of the school” (Finch & Crunkilton, 1999, p. 11). The operational definition for this study is the teaching methods, topics, and materials the agricultural communications programs use to educate students in the discipline.
3. **National Agricultural Communicators of Tomorrow Organization:** a professional organization composed of college students interested in agricultural communications (Burnett & Tucker, 2001).

Assumptions

The researcher included the following assumptions in the study:

1. It is assumed by the researcher the subjects answered the survey questions truthfully.
2. It is assumed each participant in the study accurately represents his or her undergraduate academic program.

Limitations

1. Undergraduate programs can only be identified with the use of the National Agricultural Communicators of Tomorrow Organization’s database, the use of Internet search engines, previous research, and personal communication. Not all agricultural communications undergraduate programs have an Agricultural Communicators of Tomorrow chapter.
2. Researcher bias is inherent in all qualitative contexts.

3. The researcher-developed instrument is untested beyond the pilot test. Therefore, the reliability is limited.
4. The results are only generalizable to the programs in this study.

II. Conceptual and Theoretical Framework

Periodic examination of academic disciplines is important because the results typically guide growth, enhancing the success of students, academic programs, colleges or universities, and industry. Miller, Stewart, and West (2006) noted the academic discipline of agricultural communications should, “constantly analyze (the discipline), question its purpose, and propose new directions in order for it to grow, progress, and be of use to the profession it serves” (2006, p. 3). Evaluation of academic disciplines allows for establishment of a common focus, cohesion between professionals, and a goal-oriented vision for the discipline and academic department (Miller, Stewart, & West, 2006). The research and teaching programs in academia related to agricultural communications should ultimately guide agricultural communications practitioners’ work, creating cohesiveness between universities and the industries they serve. Though such examinations may be difficult to accomplish from a research perspective, it is the task of academic programs to evaluate themselves for the success of future graduates (Morgan, King, Rudd, & Kaufman, 2013). “As our world and its social and ecological systems change, so must our instruction, curricula, and educational systems,” noted Sprecker and Rudd (1998, p. 31).

According to Miller, Stewart and West (2006) the themes emerging in agricultural communications research in the early 2000s were communications management, information technology, media relations, distance education, professional development, publications, accountability, biotechnology communications, electronic media, writing, academic programs and more. With those emphases noted, “future research directions for the discipline should build upon the most common research themes (e.g., communications management and information technology) and should work to develop newly emerging research themes (e.g., writing, academic programs, and graphic design)” (Miller, Stewart, & West, 2006, p. 15). Doerfert

(2003) suggested agricultural communications programs in higher education “skate to where others are heading.” Basically, he envisioned agricultural communications researchers trying envision the future of the discipline and predict trends that would develop overtime. This in fact would help the discipline be prepared to handle the diversified consumers of agricultural information and the changes lie ahead for agricultural communicators. Moreover, Tucker (2004) replied to the editorial by Doerfert, saying that academic agricultural communications professionals should skate where others are *not* headed to shine light upon issues being neglected by agricultural communications researchers. This study aligns in certain ways with both Doerfert’s and Tucker’s sentiments. The philosophy behind the study is to provide empirical data to guide academic programs toward where others are heading, but also to provide data demonstrate unique new opportunities to address neglected issue within the profession through academic program and curriculum development. Results of studies such as this enable college faculty and administrators to understand current trends and predict future trends in the discipline fundamentally, giving the profession a snapshot into the current status of the discipline and a roadmap for the discipline’s future.

More work is needed to promote growth and development of the academic discipline to forge a clear path and future for agricultural communications (Tucker, 1996). Tucker (1996) noted, “Agricultural communication cannot only survive, but benefit from a thorough critique of its methods and objectives. No doubt, our greatest strides will result from introspection and dialogue among land-grant communicators, social-science researchers and private industry” (p. 37). What Tucker discussed is exactly what this study strived to achieve with an introspective critique of methods and objectives of academic programs between communicators and social-

science researchers. Research is the most valuable tool to understand our performance as higher education professionals and improve upon it (Boone, Meisenbach, & Tucker, 2000).

Agricultural Communication Courses

Agricultural communications was created due to the need to share information with rural audiences, but since that time agricultural communications has developed and changed to informing both rural and urban audiences (Tucker, Whaley, & Cano, 2003). Therefore, agricultural communications courses need to strive to educate students to effectively communicate the message of agriculture to multiple audiences through various media.

Agricultural communications courses need to provide learning experiences to students through coursework that allows them to use and internalize information (Newcomb & Trefz, 1987).

Moreover, professors in the discipline need to examine what levels of learning they are teaching (Newcomb & Trefz, 1987).

Sprecker and Rudd (1998) established agricultural communications courses “should teach students to conduct communication campaigns and to manage issues, especially crisis situations, because communicators spend much time responding to issues beyond their control” (p. 36). Interpersonal networking and internships were also highlighted as critical components of agricultural communications coursework for students.

In the Sprecker and Rudd (1998) study, practitioners believed writing, visual media skills, interpersonal networking skills, and at least one internship was vital to student success further enforcing the need for interpersonal skills and internships in agricultural communications courses. Recommendations from practitioners in the Sprecker and Rudd (1998) study suggested eliminating semester-long introductory agricultural communications courses in specific commodities, which would allow for a series of courses offering a broader agriculture knowledge

base to students. In turn, recommendations were made to develop more in-depth communication courses to help prepare students for their future careers (Sprecker and Rudd, 1998).

Additionally, in a similar study compiled by Fryar and Miller (2006) surveying potential employers of agricultural communications graduates in Arkansas, it was reported students should complete more than one internship experience, coursework in journalism and communications should increase, agriculture and agricultural production courses should decrease, and agricultural education courses should be eliminated from degree requirements entirely. The course recommendations in each study are vital elements to improving the overall experience for students. Degree paths requiring core courses develop and enhance skills employers are looking for make programs and students more marketable. The goal is to teach skills and provide opportunities to create a wholesome, well-rounded learning experience for the student so he or she can successfully enter the job market with the skills employers are looking for.

Further supporting the above recommendations, Morgan (2012) compiled a list of competencies needed for agricultural communications undergraduates at the University of Georgia. It was revealed communication skills are the foundation needed by students along with the ability to write well, especially magazine or feature style writing, public speaking skills, understanding new media and how to effectively use new media.

In some instances, agricultural communications programs partner with journalism, mass communication schools, and communications departments to offer courses to their students. That partnership between agricultural communications programs and the journalism schools is described as, “one of the most important factors influencing the nature of undergraduate agricultural communications curriculum at a given institution” (Tucker, Whaley, & Cano, 2003, p. 26). The partnership offers structure and quality, which enhances the overall curriculum of

agricultural communications (Tucker, Whaley, & Cano, 2003). With the discipline developing and changing, are agricultural communications programs still working in conjunction with communications or journalism schools and departments? What are the benefits of working together to provide classes to student? What are the benefits of providing classes singly by agricultural communications faculty?

Program Development

Agricultural communications programs strive to develop professionals with a variety of communications skills in the agriculture industry. Newcomb and Trefz (1987) suggested an academic program's goal is to "change" students by developing and enhancing skills students can use in a professional career in the future. Currently, unlike agricultural education, no program accreditation procedures exist for agricultural communications (Tucker, Whaley, & Cano, 2003). Agricultural communications has always encountered an issue with striking a proper balance between academic and applied communications (Tucker, Whaley, Whiting, & Agung, 2002). Weckman, Witham, and Telg (2000a) suggested an accreditation system for the discipline could serve as a resource for quality textbooks for instruction, internship and job contacts, funding issues and fundamentally serve as the entity for professionals take on the challenges of the future.

Sixty percent of respondents in the Weckman, Witham and Telg (2000a) study believed an accreditation program would help the discipline. On the other hand, Tucker et al. (2002) discovered agricultural communications faculty had multiple opinions about an accreditation system for the discipline. Some faculty were in agreement for an accreditation system while others were unsure or thought a system would only provide more red tape for faculty. One issue with an accreditation system is the focus of many agricultural communications programs. Some

are focusing on professional skills while others focus on professional skills and critical thinking skills. An accreditation system would be needed to encompass both visions (Weckman, Witham, & Telg, 2000a). An accreditation system could drive and guide a set standard for program development for agricultural communications programs if it was all-inclusive encompassing the foci of the different programs.

Tucker, Whaley, and Cano (2003) suggested undergraduate education should be one of the most important aspects of an academic program. Research has noted three entities have largely shaped and structured agricultural communications programs to what they are today. The three entities are the home department, journalism or mass communication departments, and industry (Tucker, Whaley, & Cano, 2003).

Regardless of how programs are structured, growth is typically a program objective. For programs in all stages of growth, understanding how programs develop and change seems important. Acquah (2010) developed an academic program life cycle model. The model is described as, “a depiction of its enrollment history from its introduction to its withdrawal from an institutions’ portfolios or programs” (p. 4). Academic programs go through the life cycle with high and low points. Acquah discovered academic programs do not always possess a bell curve in relation to program life cycle, but sometimes more of an s-curve life cycle. The academic program life cycle includes introduction, growth, maturity, and decline (Acquah, 2010). Agricultural communications programs go through the various life cycle stages at different rates with some programs following the bell curve and others the s-curve program life cycle. This study could set the foundation for identification of the pattern and life cycle stage of agricultural communications programs.

Curriculum Development

Curriculum must be designed to achieve a balance of student goals, the needs of employers, and faculty vision (Sprecker and Rudd, 1998). Because of changes in agricultural communications, like technology developments and job requirements, faculty need to make an effort to adapt and develop curriculum to meet the current needs (Sprecker and Rudd, 1998). Where Reisner (1990) saw an issue with agricultural communications curriculum was the fact students were not required to take theory-based courses like public policy or ethics in agriculture, creating a void in the education experience. Terry et al. (1994) suggested curriculum should allow students to specialize in agriculture, while also developing their communications skills through practical coursework in communications toward the end of the degree program.

With no standard method to evaluate curriculum, faculty and administrators often neglect the planning and revision process is so desperately needed (Morgan et al., 2013). Morgan et al. (2013) noted, “The need for curriculum reform is recognized only after students fail to enroll in the antiquated curriculum. To keep curriculum on target, Diamond (1989) recommended outstanding practitioners and researchers in the field provide their input and thinking to keep curriculum viable and current” (p. 142). “College curricula must be dynamic and constantly modified in order to graduate students who are at the “cutting-edge” of knowledge and technology” mentioned Coorts in a 1987 article (p. 20).

Graham (2001) noted agriculture curriculum should be dynamic and accommodate to new situations and environments for agricultural industries to survive. Graham (2001) suggested departments in colleges of agriculture examine the following curriculum changes: explore adoption of senior projects, require more assignments to develop writing and presentation skills, incorporate hands-on teaching, increase use of computer skills in assignments, organization of

advisory committee to oversee curriculum changes, and seek employer and alumni feedback for curriculum development.

Additionally, Coorts (1987) identified seven general needs for college curricula for a changing agriculture industry. Those include computer literacy, improvement of communication skills, adjustments for students without practical agriculture experience, interaction with other departments outside of agriculture, understanding of international agriculture, less specialization in classes and broader topics in classes, and the openness to consider new approaches to teaching.

Researchers have suggested feedback from advisory committees, alumni groups, and industry stakeholders as a source for developing and implementing stronger curricula (Whaley, Tucker, & Cano, 2003). In terms of curriculum development, “agricultural communications coursework also offers an appropriate venue to incorporate topical general education concepts into the undergraduate curriculum, including media literacy, multicultural awareness, and critical thinking skills” (Tucker, Whaley, & Cano, 2003, p. 24). Doerfert and Cepica (1991) reported only one in five agricultural communications programs were actually utilizing advisory committees in their planning efforts.

Internationalizing agricultural communications curriculum is also key. Globalizing curriculum is increasingly becoming more important, and the value of international agriculture programs for students is evident (Brooks, Frick, & Bruening, 2006). Brooks, Frick and Bruening noted, “Colleges of agriculture should improve their position as leaders who provide positive vision and enthusiasm for internationalization through education of its importance and relevance in today’s world” (2006, p. 101). However, how agricultural communications programs are

providing this understanding of globalization to their students is not well documented in the literature.

In terms of curriculum, Reisner (1990) came to the conclusion agricultural communications programs' classes and curricula lacked a common denominator, with each having vast differences. Past suggestions from Bailey-Evans (1994) and Terry et al. (1994) called for a model or core curriculum that could be used as a blueprint by emerging and current agricultural communications higher education professionals to plan their own courses. Twenty years later, this model has not emerged concretely in the literature.

Teaching Methods

A variety of teaching strategies that include real world application and concepts are encouraged and considered critical in course development (Fritz & Brown, 1998). Typical methods that can be observed in agricultural communications classes include lecture-discussion, problem-solving approaches, field trips, demonstrations, service-learning courses, and capstone courses. Thematic among most of these methods is the concept of experiential learning, an approach that has been the cornerstone of agricultural education in both secondary and post-secondary institutions for more than 100 years. Hands-on learning methods bridge the gap between the classroom and the real world. They allow students to serve and observe outside the academic environment (Fritz & Brown, 1998).

Internships help students in numerous ways, whether it be refining their skill sets, improving college performance, or increasing job opportunities after graduation (Knouse, Tanner, & Harris, 1999). Morgan (2012) reported study participants (agricultural communications alumni) believed internships were a critical component of an agricultural communications undergraduate program. The internship experience is described as, “where

students would hone the skills that have been developed in their coursework,” (p. 24) These experiences help students acquire immediate skills to use while still in college, such skills include time management, self-discipline and better communication skills (Knouse, Tanner, & Harris, 1999). Internships help students gain clearer perspective and understanding of competencies that can be applied to any career (Jones & Bjelland, 2004). According to Scott (1992), students consider internship experiences as the most credible to learn about the real-world work environment. Knouse, Tanner, and Harris (1999) suggested that colleges provide more information, cultivate internship opportunities, and develop an internship class to benefit students. “Colleges should put more effort into helping students, particularly minorities, find internships” noted Knouse, Tanner, and Harris (1999). Internships are an integral piece of a wholesome learning experience for undergraduate students.

Today, students want to know what they are studying and why they are studying it, making them even more demanding than students have been in the past (Nilsson & Fulton, 2002). Capstone courses have been established in undergraduate programs to fulfill those needs of students. The capstone course can be described as the “crowning course” of undergraduate programs (Nilsson & Fulton, 2002). Capstone courses provide integrated learning experiences that students need. Capstone courses vary by definition from institution to institution, but ultimately have the same goal to give students a holistic learning experience to wrap up their undergraduate career. Sitton (2001) recommended one capstone experience should be included in the agricultural communications core curriculum to synthesize once previously disjointed information. The four most important learning objectives of a capstone course, as reported by Nilsson and Fulton, are communication skills, problem solving, knowledge and skill utilization, and problem identification (2002).

Master's level education combines research and coursework at a degree higher than bachelor's requirements (Simon, Haygood, Akers, Doerfert, & Davis, 2005). A master's degree provides more in-depth research training, refinement of skills and specialization, and intensity of instruction (Simon et al., 2005). Graduate studies in agricultural communications developed from a need for professionals with research, teaching, and technical skills in the discipline (Boone, Paulson, & Barrick, 1993). Also, research and graduate programs are sparse or nonexistent in agricultural communications programs (Tucker, Whaley, & Cano, 2003). In a study compiled by Reisner (1990) only one institution had a master's degree and doctorate program specifically in agricultural journalism. Most of those master's level degree programs were still housed in agricultural education or other departments in 1996 (Tucker, 1996). Literature notes that there is a lack of agricultural communications doctoral programs, which can limit prospects for a new research agenda (Tucker, 1996).

Since then, programs have developed and expanded, but the need for professionals with the essential research, teaching, and technical skills still exist. Literature has shown graduate programs are essential. Boone, Paulson, and Barrick (1993) suggest agricultural communications graduate programs be flexible, complement previous experiences, and allow for student specific skill development. A need still exists for further research and exploration of the emerging graduate programs.

Program Assessment

The goal of program assessment is to improve educational programs to enhance and promote student learning (University of Central Florida [UCF], 2008). Program assessment is a form of summative evaluation and benefits all faculty members (UCF, 2008). Program assessment must be ongoing and continuous for it to be successful (UCF, 2008). Assessing an

academic program is vital because, “Institutions of higher learning are becoming increasingly involved in conducting assessment within their academic programs and administrative support organizations. The desire to know how well the institution and its programs are doing and to improve service and student learning are all motivators for conducting assessment” (UCF, 2008, p. 2). Programs are more than ever forced to produce greater quality with less funds and resources. Program assessments can be used to determine if the academic program is still meeting the program’s mission and goals.

Four main purposes of program assessment are to improve, inform, prove, and support (UCF, 2008). Program assessment does not strive to single out one faculty member or student, but more of how the program is contributing to the learning, growth, and development of the group (UCF, 2008). When program assessment is conducted, it should identify the needs of the program and be manageable, meaningful, and sustainable (UCF, 2008). Program assessments are encouraged so, “you know where you are today and where you would like to go. This requires a clear articulation of the program’s mission (purpose), vision (where you would like to go), goals (steps for getting where you would like to be), objectives or outcomes (what you need to achieve for each step in order to get there), and measures (how well you are currently doing)” (UCF, 2008, p. 8). Curriculum analysis and syllabus analyses are two common approaches to program assessment. Analyses methods can be either direct or indirect. “Direct assessors of learning specifically evaluate the competence of students in the program. Indirect assessors differ in that they are concerned with students’ experiences, opinions, or perceptions, rather than their knowledge and skills” noted the Program Assessment Handbook (UCF, 2008, p. 28). The audiences that provide this feedback is very diverse, and assessment methods can be focus

groups, advisory committees, structured interviews, student logs, and instructional data (UCF, 2008).

A small amount of literature in the agricultural communications discipline has focused on program assessment methods. Doerfert and Cepica (1991) mentioned agricultural communications faculty are revered as experts in the field and should guide program direction and assessment. Morgan (2012) used a focus group approach for program assessment. Alumni of the University of Georgia participated in the study, which determined competencies needed by agricultural communications undergraduates. Irani and Scherler (2002) used a survey of recent alumni to measure job satisfaction as an outcome measure of the effectiveness of the University of Florida's agricultural communications academic program.

Research assessing programs and making recommendations is compiled to promote change and improve academic programs. Recommendations by the above researchers and others likely resulted in changes in other academic programs because of their presence in literature on this topic. Program assessment is necessary to a program's success and should be conducted to evaluate program effectiveness in meeting its mission and objectives.

Theoretical Framework

Agricultural communications has borrowed numerous theories, methods, and models from mainstream communications and social sciences since they are equally applicable to the discipline (Tucker, 1996). Agricultural communications has relied on structural-functionalist theories that have provided, "useful, practical data to evaluate the performance of our print and electronic communications products and programs" (Tucker, 1996, p. 32). Boone, Meisenbach, & Tucker (2003) discussed when, "scholars and practitioners bring their unique theories and

assumptions to the study of communication, they sometimes spawn new lines of critical inquiry that further diversify our literature” (p. 73).

Bloom’s Taxonomy, constructivism theory, and an academic program growth model are all foundational theories/models that guided this study. Bloom’s Taxonomy describes how people master or learn about a subject in a certain process of steps, whereas constructivism theory aims to describe how people think and create meaning from the processes and encounters they go through. The academic program growth model explains how academic programs have highs and lows throughout their lifespan and that academic programs can have multiple lifespans.

Bloom’s Taxonomy is a multi-tiered model and approach to how people think and the processes they go through. Dating back to 1956, Bloom’s Taxonomy has a long history that has stood the test of time (Forehand, 2005). Though widely applied to teaching and education, Bloom’s Taxonomy is quite popular in other disciplines and applications (Forehand, 2005). Bloom’s Taxonomy was, “one of the first systematic classifications of the processes of thinking and learning” (Forehand, 2005, p. 6). Bloom’s Taxonomy is often characterized as the actual measurement tool for thinking.

Bloom's Taxonomy of Educational Objectives

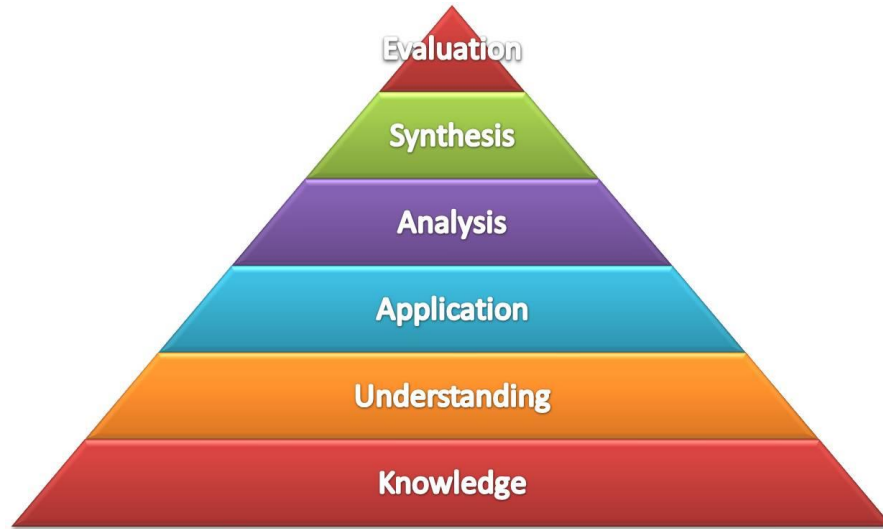


Figure 1. Levels of Thinking from Bloom's Taxonomy. (Devitre, 2008).

The taxonomy has been widely depicted as a stairway where mastery of one level is required before moving on to the next. The lower three levels of thinking are knowledge, understanding, and application, and the higher three levels are analysis, synthesis, and evaluation. A clear split between higher and lower levels of thinking are established with Bloom's Taxonomy. Teaching and education from kindergarten to graduate studies is where the taxonomy is most widely applied (Forehand, 2005). Teachers' often want students to go through the steps to master a higher level of thinking. The taxonomy has been associated with, "problem solving skills, creative and critical thinking, and more recently technology integration" (Forehand, 2005, p. 7).

Bloom's Taxonomy enables academic programs and faculty members to fully understand how students learn and what processes they go through to achieve a comprehensive learning experience. This study evaluates the use of higher and lower level thinking, as highlighted by

Bloom, in course teaching approaches. The high applicability of Bloom's Taxonomy to teaching and education directly aligns with this study.

Constructivism Theory

Constructivism, in its original form, demonstrates how mental structures of humans are developed over time (Littlejohn & Foss, 2009). These mental structures play an important role as to how people interact and engage in communication. Constructivism acts as an umbrella for a diverse variety of views and applications to research.

Constructivism is an epistemology, which aims to explain knowledge and how people learn (Abdal-Haqq, 1998). The theory receives a lot of notoriety in the preschool to high school classrooms and with pre-service teachers. Researchers see constructivism as a powerful, natural, relevant, and empowering structure to educating these students. Constructivism promotes engaging interactions, problem solving, and inquiry by students where the teacher acts as guide to students (Abdal-Haqq, 1998).

Two of the main divisions of constructivism are cognitive and social constructivism. Cognitive constructivism, which is also known as psychological constructivism, focuses on education of the individual's needs and interests (Abdal-Haqq, 1998). The interest lies only with the single subjects, and his or her interests and, "the approach assumes that students come to classrooms with ideas, beliefs, and opinions that need to be altered or modified by a teacher who facilitates this alteration by devising tasks and question that create dilemmas for students" (Abdal-Haqq, 1998, p. 2). Individuals gain knowledge by working through and solving issues and are characterized by the discovery or hands-on approach (Abdal-Haqq, 1998). Social constructivism focuses on the social aspect to learning and acquiring knowledge (Abdal-Haqq, 1998). Social constructivism is rooted in the belief that knowledge is constructed with

interaction from the environment, and both the environment and individual are impacted with this relationship (Abdal-Haqq, 1998). Furthermore, a classroom developed around constructivism has the possibility to positively effect students both cognitively and socially (Powell & Kalina, 2009).

Agricultural communications revolves around communicating effectively, and academic programs strive to produce students with excellent communication skills. For agricultural communications programs to foster communication skill development, higher education professionals need to know how to efficiently and effectively teach skills to students and the discipline in general. This requires application of the constructivist concepts of engaging interactions, problem solving, and inquiry by students.

The generalizability and flexibility of constructivism as a learning theory make it readily applicable to analyzing agricultural communication programs and curriculum. Understanding the theory is one factor but putting it into practice is another. Constructivism theories can serve as a guide for curricula and coursework, and faculty in agricultural communications need to fully grasp the theories and implement the strategies of cognitive and social learning as they develop their programs.

Academic Program Growth Model

Acquah (2010) developed an academic program growth model that shows the stages of academic program life cycles. The model has been tested for forecasting accuracy by cross-validation and tested for correlations between current student enrollments and predicted enrollments to prove its reliability. Acquah (2010) urges researchers to now apply the growth model to study life cycles of academic programs at their own institutions. Traditional models follow a bell curve, but Acquah suggests some programs may follow an s-shaped cycle-recycle

curve. If the agricultural communications discipline can identify an applicable model (bell or s-shaped curve), it can more easily predict future growth patterns of programs and their various stage of growth.

Acquah does suggest another model be developed that includes social and economic factors in the academic program life cycle. Understanding the academic program life cycle enables higher education professionals to evaluate their program's current stage in the life cycle and readily prepare for the next step in program development.

Summary

The literature over the years has shown the discipline has made some attempts to evaluate itself, develop new ideas and practices, assist in meeting industry requirements, and focus on pressing needs for the discipline. The literature contains a significant and somewhat diverse body of knowledge from curriculum development and evaluation studies to theoretical pieces investigating the concept of program accreditation. Though this collection of research on the discipline exists, more research and evaluation of the discipline and its practices could be conducted. A true need exists for an updated description of agricultural communications programs today. This study fills the need for a spotlight on the current status of agricultural communications programs in the 21st century. As a discipline, agricultural communications needs to see where it is now to establish and determine where it is going. This study should help guide program development, evaluation, and future research in agricultural communications across the country.

III. Methodology

Purpose of Study

The purpose of this study was to describe and characterize agricultural communications undergraduate programs. The following research objectives guided the study:

1. To create an updated accounting of existing national agricultural communications academic programs.
2. To describe demographic characteristics of national agricultural communication programs.
3. To describe the status of agricultural communications programs' curriculum based on the following broad characteristics:
 - a. Courses offered and required
 - b. Specific program development efforts
 - c. Specific curriculum development efforts
 - d. Teaching methods
4. To identify trends in program demographics and curriculum development.
5. To identify those agricultural communications academic programs held in the highest professional regard from peers across the country.

Design of Study

This study was a mixed-methods descriptive examination of agricultural communications undergraduate programs. A survey was used as the method of data collection. The survey collected both quantitative and qualitative data. Huberman and Miles (2002) noted the combination of qualitative and quantitative methods can be highly synergistic. Quantitative evidence can reveal information that might not be as prominent to the researcher. Qualitative

data can be used to understand the theory behind the relationships discovered in the quantitative analyses (Huberman & Miles, 2002). Quantitative findings can also further support the theories suggested by qualitative findings (Huberman & Miles, 2002). Drawing from these complementary strengths, this study quantitatively describes agricultural communications programs and qualitatively provides more information about a national accreditation system and challenges facing academic programs both individually and nationally.

The study employed the use of a survey questionnaire. Questionnaires are recognized as, “the most widely used technique for obtaining information from subjects. A questionnaire is relatively economical, has the same questions for all subjects, and can ensure autonomy” (McMillan & Schumacher, 2010, p. 195). Quantitative analysis allows researchers to determine relationships, effects, and causes with the use of numbers and statistical information (Wiersma, 1995). Questionnaires are a proven way to gather empirical data in the social sciences and have fewer opportunities for bias in data collection and analysis compared to other data collection methods (McMillan & Schumacher, 2010). With the emergence of the digital age, self-administered, internet-based questionnaires have benefitted social science research efforts enormously (Dillman, 2007). Qualitative data collection and analysis involves a more holistic interpretation of data (Wiersma, 1995). Open-ended questions were included in the survey instrument to collect qualitative data.

A census approach was used for the survey portion of the study. All of the known population (41 academic programs) was contacted with this census approach.

Subjects and Subject Selection

Agricultural communications faculty and administrators from colleges and universities in the United States were targeted to participate in this study. Agricultural communications

programs were first identified from the National Agricultural Communicators of Tomorrow's (ACT's) membership databases from 2001-2013, the Association of Public and Land-Grant Universities (APLU) membership, and from online searches. ACT is the premier college student organization for agricultural communicators. Though not every academic program has an ACT chapter, the national organization maintained the most updated list of programs in the U.S.

In this census approach, the researchers aimed to contact every known agricultural communications academic program that has had an ACT student organization in the last 12 years. Once academic programs were established from the ACT database, the APLU website was used to find additional universities with agricultural communications programs. The APLU website acted as a starting point to lead to institutional websites. University members of the APLU websites were searched and reviewed for the presence of an agricultural communications program at each institution via degree options offered. Web searches were also conducted to identify existing programs. Terms used in search engines were "agricultural communications," "agricultural communications degree," and "agricultural communications degree program." Some institutions were contacted directly via personal communication (telephone or email conversations) to verify the presence of an agricultural communications program where program existence may have been uncertain. Recent previous agricultural communications academic program research was also used to verify the presence of programs (Ahrens, 2014). In many instances, programs were verified by more than one method leading to triangulation. Additionally, the snowballing method (Ary, Jacobs, & Razavieh, 1996) was employed during surveys to further identify programs not identified by previous methods. The snowballing technique involved asking survey participants to provide any additional programs they were aware of that might not be in the database or easily accessible via web searches.

One unit head/faculty member at each institution with an agricultural communications program was identified to complete the survey instrument. Unit heads or equivalent faculty member overseeing the agricultural communications program were contacted about the survey and chose the most appropriate faculty member, based on his or her institutional knowledge related to the agricultural communications program, to respond to the specific survey questions.

Prior to subjects being contacted, the Institutional Review Board at the University of Arkansas reviewed and approved the survey (Appendix A).

Instrumentation

Development of Questionnaire and Interview Questioning Route

A survey consisting of a collection of researcher-developed questions and established questions from past researchers' instruments used to conduct similar research was used for this study (Appendix B). The survey consisted of 64 questions and included questions that were Likert-type, rank-order, fill in the blank, and open-ended. The survey was guided by five constructs: (1) basic program information (2) curriculum (3) teaching methods (4) faculty (5) perceptions of model programs.

To ensure reliability of the survey instrument using test-retest reliability, a Cronbach's alpha was calculated with an *a priori* alpha level of .818. Sandelowski (1986) noted "a research instrument is valid when there is confidence that it measures what it was intended to measure" (p. 29). Academic faculty—experts in agricultural communications involved in conducting the study—reviewed the instrument for content and face validity. Prior to the pilot test, cognitive interviews were conducted with qualified faculty members to further improve the validity and reliability of the instrument and to fix any errors within the instrument before the pilot was sent out. The instrument was deemed valid for content and face validity both for the pilot test and

actual study, and minor changes were made to the wording of the questions as a result of the cognitive interviews and pilot test. Sandelowski (1986) described truth of instruments, noting “the value of an instrument is enhanced when the investigator can demonstrate that it measures what is being studied as it is defined in the study (content validity), that it compares well with other tests measuring the same phenomenon (criterion-related validity), and that the test results are congruent with theoretical explanations of the phenomenon (construct validity)” (p. 30).

Pilot Test

The survey instrument was pilot tested at selected universities to ensure reliability using the test-retest method. Junior faculty in multi-faculty departments were chosen to participate in the pilot test as to not access the population of the study. This enabled other faculty members, who would not be involved in the final data collection (population), to participate in the pilot test of the instrument. An email was sent to these faculty members containing a link to the survey. Ten days after the survey was taken another email was sent to the participants to take the survey again. A coefficient of .818 was calculated for the instrument, deeming it reliable. The closer the Cronbach’s alpha level is to 1 the more reliable the instrument is (Gliem & Gliem, 2003). A coefficient of .7 and above is acceptable for proving reliability of the instrument (George & Mallery, 2003).

Data Collection Procedures

To achieve as many respondents as possible, the researcher followed the survey administration route as described by Dillman (2007). The recommended principles for e-mail surveys are as follows: use a multiple contact strategy, personalize all emails, keep the cover letter brief to avoid scrolling, inform respondents of alternate ways to respond, and include a replacement questionnaire with the reminder message (Dillman, 2007).

Introductory emails (Appendix C) overviewing the study were sent to the department/unit head or other qualified faculty member from the listed programs in the database on March 18, 2014. Two days later on March 20, 2014, an email containing the survey link (Appendix D) with a two-week time frame to take the survey was sent out to unit/department heads that they would then pass on to their select faculty member best fitted to participate in the survey. The survey was accessed in an email via a link to a web form. A reminder email (Appendix E) including a link to the survey was sent one week after the initial survey was delivered on March 27, 2014. Final, personalized emails were sent to subjects who had yet to respond on March 31, 2014.

Data Analysis Methods

After completion of the surveys, a quantitative analysis of the data was performed. The answers to Likert-type questions were reported as frequencies and percentages. In most instances, frequencies and percentages were reported along with means and standard deviations for other data. A point system was developed to report the top agricultural communications academic program ranks.

For the qualitative portion of the study, respondent answers to qualitative survey questions were transcribed into Microsoft Word. Transcripts from the questions were then loaded into NVivo 9, a qualitative data analysis software package. NVivo 9 was used to perform a thematic analysis using the constant comparative technique as described by Wimmer and Dominick (2003). A codebook was established from emergent themes in the data. The constant comparative analysis sought to identify emergent themes from the qualitative survey questions. These emergent themes that were identified in NVivo 9 (called nodes and sub-nodes) completed the qualitative portion of this mixed methods study.

Credibility, Transferability, Dependability, and Confirmability

To establish credibility, transferability, dependability and confirmability in this study, the researcher followed these four criteria as discussed by Lincoln and Guba (1985). Producers and consumers of research are consistently questioning the trustworthiness of studies, and “credibility, transferability, dependability, and confirmability must be met to generate that confidence” (Lincoln & Guba, 1985, p. 328).

Sandelowski (1986) describes a high-quality qualitative study as “credible when it presents such faithful descriptions or interpretations of a human experience that the people having that experience would immediately recognize it from those descriptions or interpretation as their own” (p. 30). A study is also known as credible when a consumer of the research after being exposed to the study once can recognize the research (Sandelowski, 1986). Credibility is closely tied to the relationship of the researcher and the subjects and is increased when the researcher describes and interprets their relationship to the study with a subjectivity statement (Sandelowski, 1986). The detailed methodology and logical analysis employed in the study help to signify its credibility. In addition, the researcher’s subjectivity statement helps clarify any known biases and provides consumers of this research with an understanding of the context within which the qualitative interpretations are framed.

Transferability refers to the generalizability of a study in quantitative research, but in qualitative research, it is the consumer of the research that ultimately decides if the study and results are generalizable to his or her situation. Qualitative researchers need to provide detailed descriptions of the methods they use to assist other researchers and consumers in making judgments based on generalizability of the research (Lincoln & Guba, 1985). Transferability was established with a detailed description of the methods and results of this study.

Dependability is unique to qualitative research in that it helps to ensure that the data and findings of the study are useful and impactful for the future (Lincoln & Guba, 1985). Lincoln and Guba (1985) propose the use of an inquiry audit where reviewers examine both the process and the product of the research to increase dependability. The qualitative data analysis was documented in NVivo9 and was reviewed by a committee of faculty, constituting the type of audit proposed by Lincoln and Guba.

Confirmability relates to the data, interpretations, and outcomes of the study (Lincoln & Guba, 1985). It establishes the objectivity of the study and warrants the truthfulness of the results. The use of a pilot study to test the study procedures was helpful to ensure that the data collection process produced confirmable results. In addition, ensuring that the study participants were the faculty at each institution who were the most knowledgeable regarding their agricultural communications program. In identifying the existence of programs, when a program was identified via a website, diligent attempts were made to verify the continued existence of the program via a telephone call or other face-to-face method. Finally, concerning the analysis of qualitative data, an audit trail (in the form of an Nvivo9 project file) exists to confirm the presence of themes that emerged from among the qualitative responses.

Summary

This study employed a mixed methods approach using a survey instrument. Survey subjects were selected from all known agricultural communications academic programs. Data analysis included descriptive statistics and open and axial coding. The data analyses lead to the results and conclusions of this study.

IV. Results

Chapter IV presents the findings from this study related to the research objectives that guided this study. The findings are reported in categories guided by the survey instrument.

A total of 41 programs were identified and verified as having an agricultural communications undergraduate program. In this study, a total of 26 subjects responded to the survey with a 63% response rate.

RO1: To create an updated accounting of existing national agricultural communications academic programs.

Research objective one aimed to create an updated list of current agricultural communications programs nationwide. A degree program is considered a major, minor and/or concentration/specialization/emphasis/option of an agricultural communications degree. Below is the updated list of identified agricultural communications programs.

Updated Accounting of National Agricultural Communications Programs

Table 1 identifies all of the verified agricultural communications programs in this study. A total of 41 programs with majors, minors, and concentration/specialization/emphasis/options were established.

Table 1

Identified Agricultural Communications Programs (N = 41)

| Institution | Method |
|---|-----------------------|
| Auburn University | Institutional website |
| California Polytechnic State University | Institutional website |
| Clemson University | Personal verification |
| Connors State College | Institutional website |
| Cornell University | Institutional website |
| Fresno State University | Institutional website |

Table 1 continued

| Institution | Method |
|--|-----------------------|
| Iowa State University | Institutional website |
| Kansas State University | Institutional website |
| Louisiana State University | Institutional website |
| Michigan State University | Personal verification |
| Mississippi State University | Personal verification |
| Murray State University | Institutional website |
| New Mexico State University | Institutional website |
| North Dakota State University | Institutional website |
| Northwest College (Wyoming) | Institutional website |
| Ohio State University | Institutional website |
| Oklahoma State University | Institutional website |
| Pennsylvania State University | Institutional website |
| Purdue University | Institutional website |
| South Dakota State University | Institutional website |
| Southern Illinois University | Institutional website |
| Tarleton University | Institutional website |
| Tennessee Tech University | Institutional website |
| Texas A&M University | Institutional website |
| Texas Tech University | Institutional website |
| University of Arkansas | Institutional website |
| University of Florida | Institutional website |
| University of Georgia | Institutional website |
| University of Idaho | Institutional website |
| University of Illinois at Urbana-Champaign | Institutional website |
| University of Kentucky | Institutional website |
| University of Minnesota | Institutional website |
| University of Missouri | Institutional website |
| University of Nebraska-Lincoln | Institutional website |
| University of Tennessee | Ahrens, 2014 |
| University of Wisconsin-Madison | Institutional website |

Table 1 continued

| Institution | Method |
|-------------------------------------|-----------------------|
| University of Wisconsin-River Falls | Institutional website |
| University of Wyoming | Institutional website |
| Utah State University | Ahrens, 2014 |
| West Texas A&M University | Ahrens, 2014 |

Table 1 displays the 41 identified agricultural communications programs in this study from across the country. Most programs were first identified via the National Agricultural Communicators of Tomorrow (ACT) database. Online and institutional searches, recent previous academic program research (Ahrens, 2014) and/or personal verification were secondary. In many instances, programs were identified by more than one method. Table 1 shows the method by which the program was last identified.

RO2: To describe demographic characteristics of national agricultural communication programs.

Objective two of this study was to accurately and thoroughly describe the identified programs. Demographic characteristics described included but were not limited to program name, college in which the program is housed if applicable, program type, degree type, program age, and degree awarded. Table 2, Table 3, and Table 4 provide the demographic data pertaining to the identified programs.

Demographic Characteristics of Agricultural Communications Programs

Table 2

Basic Program Information (N = 26)

| Institution | Name of Program | College Housed | Department | Position in Organizational Structure | Degree Type |
|-------------------------------------|-----------------------------|---|--|---|--|
| Program A | Agricultural Communications | College of Agriculture | It is an interdepartmental (multidisciplinary) program overseen by an appointed faculty advisory group. | Shared program housed by more than one unit | Major |
| 35 Cal Poly State University | -- | College of Agriculture, Food and Environmental Sciences | Ag Education and Communication | Program in multi-program unit | Major, Minor, Concentration/ specialization/ emphasis/option |
| Clemson | -- | -- | The School of Agricultural, Forest, and Environmental Sciences in the College of Agriculture, Forestry and Life Sciences | It is one option of three in Ag Ed, others are teaching option and leadership | Concentration/ specialization/ emphasis/option |

Table 2 continues

Table 2 continued

| Institution | Name of Program | College Housed | Department | Position in Organizational Structure | Degree Type |
|--------------------------------------|--|---|---|--|--|
| Connors State College | Agricultural Communications | N/A | Division of Agriculture | Program in multi-program unit | Major |
| Kansas State University | Agricultural Communications and Journalism | College of Agriculture | Communications and Agricultural Education | Academic unit that also houses the service group | Major |
| Program B | Agricultural Communication | School of Agriculture | School of Agriculture | Program in multi-program unit | Major |
| New Mexico State University | Agricultural Communications | Agricultural, Consumer and Environmental Sciences | Agricultural and Extension Education | Program in multi-program unit | Concentration/specialization/emphasis/option |
| Program C | Agricultural Communication | College of Arts, Humanities, and Social Sciences | Department of Communication | Program in multi-program unit | Major, Minor |
| Ohio State University | Agricultural Communication | College of Food, Agriculture and Environmental Sciences | Ag Communication, Education, Leadership | Program in multi-program unit | Major, Minor |
| Oklahoma State University | Agricultural Communications | College of Agricultural Sciences and Natural Resources | Agricultural Education, Communications and Leadership | Program in multi-program unit | Major |
| Pennsylvania State University | Agricultural Communications | College of Agricultural Sciences | Agricultural Economics, Sociology, and Education | Program in own academic unit | Minor |

36

Table 2 continues

Table 2 continued

| Institution | Name of Program | College Housed | Department | Position in Organizational Structure | Degree Type |
|--------------------------------------|--|--|--|--------------------------------------|--|
| Purdue University | Agricultural Communication | College of Agriculture | Department of Youth Development and Agricultural Education | Program in multi-program unit | Major |
| South Dakota State University | Agricultural Communications | College of Agriculture & Biological Sciences | Teaching Learning and Leadership | Program in service unit | Major |
| Southern Illinois University | Agricultural Communications | College of Agricultural Sciences | Dept. of Plant, Soil and Agricultural Systems | Program in multi-program unit | Concentration/ specialization/ emphasis/option |
| Texas A&M University | Agricultural Communications and Journalism | College of Agriculture and Life Sciences | Agricultural Leadership, Education, and Communications | Program in multi-program unit | Major |
| Texas Tech University | Agricultural Communications | College of Agricultural Sciences and Natural Resources | Department of Agricultural Education and Communications | Program in own academic unit | Major, Minor |

37

Table 2 continues

Table 2 continued

| Institution | Name of Program | College Housed | Department | Position in Organizational Structure | Degree Type |
|---|---|---|---|---|---|
| University of Arkansas | Agricultural Communications | Dale Bumpers College of Agricultural, Food and Life Sciences | Agricultural Education, Communications, and Technology | Program in multi-program unit | Minor, Concentration/specialization/emphasis/option |
| University of Florida | Communication and Leadership Development | College of Agricultural and Life Sciences | Agricultural Education and Communication | Program in own academic unit | Major, Minor |
| Program D | Agricultural Communication | College of Agricultural and Environmental Science | Agricultural Leadership, Education and Communication | Program in own academic unit | Major |
| University of Idaho | Agricultural Science, Communication, and Leadership | College of Agricultural and Life Sciences | Department of Agricultural Education and 4-H Youth Development | Program in own academic unit | Concentration/specialization/emphasis/option |
| University of Illinois at Urbana-Champaign | Agricultural Communications | College of Agricultural, Consumer and Environmental Sciences and the College of Media | The Agricultural Communications is a free-standing academic unit. | Shared program housed by more than one unit | Major |

38

Table 2 continues

Table 2 continued

| Institution | Name of Program | College Housed | Department | Position in Organizational Structure | Degree Type |
|---------------------------------------|---|--|--|---|------------------------------|
| Program E | Community and Leadership Development | College of Agriculture, Food and Environment | Dept. of Community and Leadership Development | Program in own academic unit | Concentration within a minor |
| University of Nebraska-Lincoln | Agricultural and Environmental Sciences Communication | College of Agricultural Sciences and Natural Resources | Agricultural Leadership, Education and Communication | Program in multi-program unit | Major |
| Program F | Life Sciences Communication | College of Agricultural and Life Sciences | Department of Life Sciences Communication | Program in own academic unit | Major |
| Utah State University | Agricultural Communication and Journalism | College of Agriculture and Applied Sciences | School of Applied Sciences, Technology and Education | Program in multi-program unit | Major |
| West Texas A&M University | Agricultural Media and Communication | College of Agriculture, Sciences and Engineering | Department of Agricultural Sciences | Shared program housed by more than one unit | Major |

Table 2 displays all of the agricultural communications undergraduate programs that responded to the survey instrument. The table includes the name of the institution’s agricultural communications program, where the program is housed in college and/or department, the organizational structure, and the agricultural communications degree type offered. In two instances, respondents marked “option” as a degree type offered, and for ease and clarification purposes, option was grouped with the concentration, specialization and emphasis option, as they closely align.

Table 3 includes the year the agricultural communications program began at each institution along with the academic degree awarded to students. A total of 26 respondents provided data for this table.

Table 3

Age of Program and Degree Type (N = 26)

| Institution | Year Founded | Degree Awarded |
|-------------------------------|--------------|---|
| Program A | -- | Bachelor of Science |
| Cal Poly State University | -- | Bachelor of Science |
| Clemson | 1999 | Bachelor of Science |
| Connors State College | 2006 | Associate in Science |
| Kansas State University | 1946 | Bachelor of Science |
| Program B | 1995 | Bachelor of Science |
| New Mexico State University | 1995 | Bachelor of Science |
| Program C | 2009 | Bachelor of Science |
| Ohio State University | 1980 | Bachelor of Science |
| Oklahoma State University | -- | Bachelor of Science |
| Purdue University | 1971 | Bachelor of Science |
| South Dakota State University | -- | Bachelor of Science |
| Southern Illinois University | 2007 | Concentration/specialization/emphasis/ option of a B.S. degree |

Table 3 continued

| Institution | Year Founded | Degree Awarded |
|--|--------------|---|
| Texas A&M University | 1918 | Bachelor of Science |
| Texas Tech University | 1992 | Bachelor of Science |
| University of Arkansas | 1998 | Concentration/specialization/emphasis/ option of a B.S. degree |
| University of Florida | 1993 | Bachelor of Science |
| Program D | 2000 | Bachelor of Science |
| University of Idaho | 2000 | Bachelor of Science |
| University of Illinois at Urbana- Champaign | 1961 | Bachelor of Science |
| Program E | -- | Bachelor of Science |
| University of Minnesota | -- | Bachelor of Science |
| University of Nebraska-Lincoln | -- | Bachelor of Science |
| Program F | 2006 | Bachelor of Science |
| Utah State University | 2006 | Bachelor of Science |
| West Texas A&M University | 2008 | Bachelor of Science |

Note: Several respondents did not provide a year in which their program was founded.

A total of 88.4% of institutions reported a bachelor of science is awarded to students, 7.6% a concentration/specialization/emphasis/option of a bachelor's degree, and 4% an associate of science degree. The data revealed the oldest program began in 1918 at Texas A&M University and the newest program began in 2009.

Each institution, current undergraduate student enrollment numbers, past enrollment and future enrollment are shown in Table 4. Both past and future enrollment trends were answered based on the past five years or five years into the future.

Table 4

Current, Historical and Projected Enrollment (N = 26)

| Institution | Current | Historical | Projected |
|---|---------|-------------------|-----------------|
| Program A | 37 | Increased | Increase |
| Cal Poly State University | 130 | Increased | Increase |
| Clemson | 8 | Remained constant | Increase |
| Connors State College | 10 | Increased | Increase |
| Kansas State University | 68 | Increased | Remain constant |
| Program B | 60 | Increased | Increase |
| New Mexico State University | 30 | Increased | Increase |
| Program C | 40 | Increased | Increase |
| Ohio State University | 83 | Increased | Increase |
| Oklahoma State University | 150 | Increased | Increase |
| Pennsylvania State University | 8 | Increased | Increase |
| Purdue University | 44 | Increased | Increase |
| South Dakota State University | 20 | Remained constant | Increase |
| Southern Illinois University | 7 | Remained constant | Increase |
| Texas A&M University | 360 | Increased | Increase |
| Texas Tech University | 160 | Increased | Increase |
| University of Arkansas | 41 | Increased | Increase |
| University of Florida | 85 | Increased | Increase |
| Program D | 40 | Remained constant | Increase |
| University of Idaho | 50 | Increased | Increase |
| University of Illinois at Urbana-Champaign | 40 | Remained constant | Increase |
| Program E | -- | Remained constant | Remain constant |
| University of Nebraska- Lincoln | 25 | Remained constant | Increase |
| Program F | -- | Increased | -- |

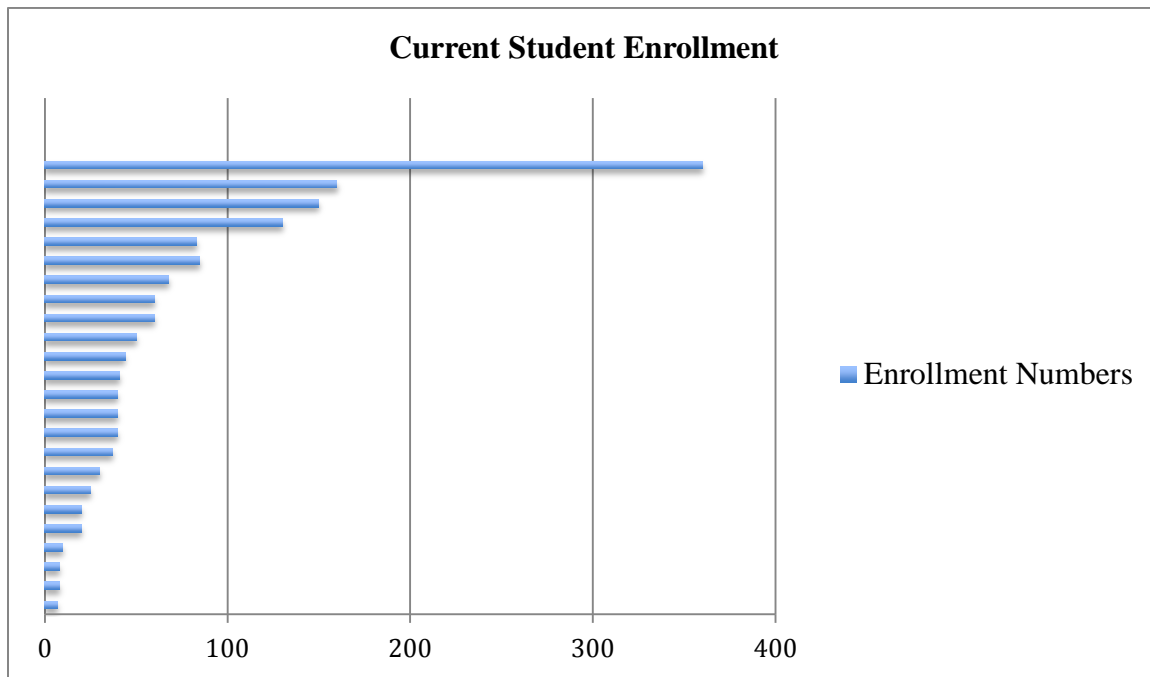
Table 4 continued

| Institution | Current | Historical | Projected |
|---------------------------|---------|-------------------|-----------------|
| Utah State University | 20 | Remained constant | Increase |
| West Texas A&M University | 60 | Increased | Remain constant |

In Table 4, the average student enrollment per institution was 66 (SD = 74.1). In the past, 30.7% of institutions' student enrollment numbers remained constant, whereas 69.3% of institution's student enrollment increased. A total of 88% of respondents reported their programs want to increase student enrollment numbers in the future, and 12% would like student enrollment numbers to remain constant over the next five years.

Figure 2

Current Student Enrollment Bar Graph (N = 24)



RO3: To describe the status of agricultural communications programs' curriculum based on the following broad characteristics: courses offered and required, specific program development efforts, specific curriculum development efforts, and teaching methods.

The third research objective aimed to describe the status of the current agricultural communications programs' curriculum. The following tables and narratives describe and highlight program courses required both inside the department and outside, capstone courses, teaching methods, program development efforts and curriculum development efforts of these programs.

Curriculum Development

All respondents noted their institution was based on the semester hour system except for one, which was on the quarter system. The program with the quarter system was left out of the below semester hour data. The average course semester hours required for students majoring in agricultural communications is 121.5 (SD = 2.4). In addition to majors, those minoring in agricultural communications averaged 125.5 (SD = 6.8) total semester hours, and concentration/specialization/emphasis/option students needed 121 (SD = 1.4) semester hours needed to graduate with a bachelor's degree. Of the total number of semester hours required to graduate with a bachelor's degree, 38.1 (SD = 8.8) hours of those are communications-related courses for students majoring in agricultural communications. Students minoring in agricultural communications are required to take an average of 21.5 (SD = 6.8) hours of communications-specific courses and concentration/specialization/emphasis/option students 30.5 (SD = 16.2) hours.

Courses Offered and Required

Agricultural communications courses are at times taught both inside the department and outside of the department. Table 5 provides the data pertaining to where (inside or outside) courses are taught and what types of courses are required by degree type. In this table and following tables, programs are listed by degree type. Programs may offer more than one degree type (major, minor, concentration/specialization/emphasis/option) but were categorized in the tables below by highest degree offered at each program. If a program offered multiple options (major, minor, concentration/specialization/emphasis/option), the program was grouped with whichever highest option was offered. A program with both a major and minor was put in the major category. A program with only a minor was in put in the minor category.

Table 5

Agricultural Communications Courses (N = 23)

| Course Type | Major | | | | Minor | | | | Concentration/ specialization/ emphasis/option | | | |
|-------------------------------------|----------|-----|----------|-----|----------|------|----------|-----|--|------|----------|------|
| | Inside | | Outside | | Inside | | Outside | | Inside | | Outside | |
| | <i>f</i> | % | <i>f</i> | % | <i>f</i> | % | <i>f</i> | % | <i>f</i> | % | <i>f</i> | % |
| Advertising | -- | -- | 6 | 7.3 | -- | -- | -- | -- | -- | -- | -- | -- |
| Agricultural or communications law | -- | -- | 6 | 7.3 | -- | -- | 1 | 2.5 | -- | -- | 2 | 11.7 |
| Broadcast | 5 | 4.6 | 2 | 2.4 | -- | -- | 1 | 2.5 | -- | -- | 1 | 5.8 |
| Business Communications | -- | -- | 1 | 1.2 | -- | -- | 1 | 2.5 | -- | -- | -- | -- |
| Communication theory | 3 | 2.7 | 2 | 2.4 | -- | -- | 1 | 2.5 | -- | -- | -- | -- |
| Conflict management | -- | -- | -- | -- | -- | -- | 3 | 7.6 | -- | -- | -- | -- |
| Corporate communications | -- | -- | 1 | 1.2 | -- | -- | -- | -- | -- | -- | -- | -- |
| Editing | 1 | 0.9 | 4 | 4.8 | -- | -- | 1 | 2.5 | -- | -- | -- | -- |
| Electronic/website/social media | 10 | 9.2 | 4 | 4.8 | 1 | 12.5 | 1 | 2.5 | 1 | 7.6 | 1 | 5.8 |
| Ethics in communication | 2 | 1.8 | 1 | 1.2 | -- | -- | -- | -- | -- | -- | 2 | 11.7 |
| Fundamentals of journalism | 2 | 1.8 | 5 | 6.0 | -- | -- | 1 | 2.5 | -- | -- | 3 | 17.6 |
| General agricultural communications | 10 | 9.2 | 1 | 1.2 | 2 | 25.0 | -- | -- | -- | -- | -- | -- |
| General capstone/seminar | 9 | 8.3 | 1 | 1.2 | -- | -- | -- | -- | 2 | 15.3 | -- | -- |
| Graphics | 6 | 5.5 | 3 | 3.6 | -- | -- | -- | -- | 1 | 7.6 | -- | -- |
| Health communication | -- | -- | - | -- | -- | -- | 1 | 2.5 | -- | -- | -- | -- |
| History of communication | -- | -- | 2 | 2.4 | -- | -- | -- | -- | -- | -- | 2 | 11.7 |
| Intercultural communication | -- | -- | 1 | 1.2 | -- | -- | 3 | 7.6 | -- | -- | 1 | 5.8 |
| Internship | 4 | 3.7 | -- | -- | 1 | 12.5 | -- | -- | 2 | 15.3 | -- | -- |
| Interpersonal communication | -- | -- | -- | -- | -- | -- | 3 | 7.6 | -- | -- | -- | -- |
| Introduction/orientation | 7 | 6.4 | 1 | 1.2 | 1 | 12.5 | -- | -- | 1 | 7.6 | -- | -- |
| Leadership | 2 | 1.8 | -- | -- | 1 | 12.5 | 1 | 2.5 | 1 | 7.6 | -- | -- |
| Marketing/sales | 3 | 2.7 | 3 | 3.6 | -- | -- | -- | -- | -- | -- | -- | -- |
| Mass communication/society | -- | -- | 4 | 4.8 | -- | -- | -- | -- | -- | -- | 1 | 5.8 |

Table 5 continues

Table 5 displays the communications-related courses required for majors, minors, and concentrations/specializations/emphases/options degree programs. Frequencies and percentages were reported for each course type. A total of 36 different types of courses were reported.

Additionally, 13 programs predicted they would be adding courses to the current agricultural communications curriculum offered over the next five years. Courses noted were a capstone course, social media in agriculture, introductory course, global agricultural communications and development, photography, publication and design, and risk and crisis communication. Four programs indicated plans to drop courses that are currently offered. Some reasons given were program/degree restructuring and having a course offered as an elective instead of making it a required part of the degree program.

Specific Courses

Table 6 shows a breakdown of majors, minors, and concentration/specialization/emphasis/options and whether or not they require capstone courses and internship experiences.

Table 6

Culminating Experiential Learning Courses (N = 23)

| | Majors | | Minors | | Concentration/ specialization/emphasis /option | | Total | |
|------------------------|------------------------|-----------------------|------------------------|-----------------------|--|-----------------------|------------------------|-----------------------|
| | <u>Yes</u> <u>%</u> | <u>No</u> <u>%</u> | <u>Yes</u> <u>%</u> | <u>No</u> <u>%</u> | <u>Yes</u> <u>%</u> | <u>No</u> <u>%</u> | <u>Yes</u> <u>%</u> | <u>No</u> <u>%</u> |
| Capstone (n = 23) | 82.4 | 17.6 | 25 | 75 | 100 | 0 | 73.9 | 26.1 |
| Internships (n = 8) | 71.5 | 28.5 | -- | -- | 100 | 0 | 75 | 25 |

Table 6 displays revealed that a majority of programs require both capstone courses and internships. A total of 23 respondents answered the capstone question, whereas only eight respondents answered the internship requirement question.

Listed below were the most commonly mentioned capstone courses offered in agricultural communications programs currently:

- Publication design and production
- Communications campaigns/strategies
- Senior creative projects
- Web design
- Seminar and general capstone courses

Additionally, an average of 2.8 hours (SD = 1.4) of required internship, based on the semester hour system, were reported per program. An average of 111.8 work hours (SD = 35.8) per hour of credit for an internship was also reported. In terms of technical agriculture courses, the most common courses required by agricultural communications programs were agriculture-related social sciences ($n = 13$), animal science ($n = 12$), plant science ($n = 12$), and soil science ($n = 8$). A total of 36.3% of 22 responding programs are teaching service courses with an average of 73.5 students in each course per semester. Some service courses mentioned were public speaking/oral communications, technical writing, and communicating agriculture to the public.

Teaching Methods

Table 7 shows a list of the most commonly used teaching methods in agricultural communications programs. Teaching methods were ranked from used most frequently to least

frequently for first and second year courses, third and fourth year courses, and the overall program.

Table 7

Teaching Methods Used in Agricultural Communications Programs (N = 20)

| | First and second year (n = 16) | Third and fourth year (n = 16) | Overall program (n = 20) |
|----------------------------------|--------------------------------------|--------------------------------------|-----------------------------|
| <u>Teaching Methods</u> | <u>M</u> | <u>M</u> | <u>M</u> |
| Lecture-discussion | 2.0 | 3.4 | 2.1 |
| Problem-based learning | 2.6 | 2.5 | 2.4 |
| Collaborative learning | 2.1 | 2.9 | 2.9 |
| Demonstration | 4.0 | 4.2 | 4.2 |
| Experiential/capstone/internship | 6.0 | 3.0 | 4.4 |
| Observation/field trip | 5.2 | 5.5 | 5.7 |
| Service learning | 5.7 | 6.3 | 6.0 |

Table 7 shows the most common teaching methods in agricultural communications programs. The teaching methods are listed from most common to least common by those used in program courses overall. First and second year courses used mainly lecture-discussion, collaborative learning, and problem-based learning. Higher-level third and fourth year courses used problem-based learning, collaborative learning, and experiential/capstone/internship teaching methods most frequently. A total of 16 programs responded to the first and second year teaching methods question as well as the third and fourth year question. Twenty programs

responded to the question related to the teaching methods used in the academic program as whole.

Of total the 20 respondents to the related question about advisory committees, 75% indicated their agricultural communications program had an advisory committee. A total of 73.3% of those programs that have an advisory committee are comprised of agricultural communications professionals. How often the advisory committees meet varied, but the most common meeting frequencies were once per year ($n = 5$), twice per year ($n = 5$), and on an as needed basis ($n = 3$).

RO4: To identify trends in program demographics and curriculum development.

The fourth objective was directed to identify trends in program demographics and curriculum development.

Trends in Program Demographics

Table 8 displays faculty information for each responding institution. A total of 22 respondents provided faculty information related to full time equivalent faculty, appointment type, gender, and rank.

Table 8

Faculty Information (N = 22)

| | FTE | | Appointment Type | | Gender | | Faculty Rank | | | |
|--|------------------|------------------|------------------|-------------------|-------------|---------------|--------------|------------------|------------------|-------------------|
| | <u>Full-time</u> | <u>Part-time</u> | <u>Tenure</u> | <u>Non-tenure</u> | <u>Male</u> | <u>Female</u> | <u>Full</u> | <u>Associate</u> | <u>Assistant</u> | <u>Instructor</u> |
| Majors | | | | | | | | | | |
| California Polytechnic State University | 2.25 | -- | 2 | 1 | 1 | 1 | 1 | -- | 1 | 1 |
| Connors State College | 0.4 | -- | -- | 1 | -- | 1 | -- | -- | -- | 1 |
| Kansas State University | 4 | 1 | 4 | 1 | 1 | 3 | 1 | 2 | 1 | 1 |
| Program B | 1.5 | -- | -- | 1.5 | 0.5 | 1 | -- | -- | -- | 1.5 |
| Program C | 1 | 1 | 1 | 1 | 1 | 2 | -- | -- | -- | 1 |
| Ohio State University | 3 | 1 | 3 | 1 | 2 | 2 | -- | 2 | 1 | 1 |
| Oklahoma State University | 3 | 1 | 3 | 1 | 1 | 3 | 2 | -- | 1 | 1 |
| Purdue University | 2 | -- | 2 | -- | 1 | 1 | 1 | -- | 1 | -- |
| Texas A&M University | 3 | -- | 2 | 1 | 1 | 2 | -- | 1 | 1 | 1 |
| Texas Tech University | 4 | -- | 4 | -- | 1 | 3 | 2 | 1 | 1 | -- |
| University of Florida | 2 | 2 | 2 | 2 | 1 | 3 | 1 | | 1 | 2 |
| University of Illinois at Urbana-Champaign | 3 | 2 | 1 | 1 | 1 | 3 | -- | 1 | -- | 3 |
| University of Nebraska-Lincoln | 3 | 1 | 3 | 1 | 7 | 9 | 1 | -- | 2 | -- |
| Program F | 7 | 8 | 6 | 9 | 7 | 8 | 5 | 1 | -- | 9 |
| Utah State University | 1 | -- | 1 | -- | -- | 1 | -- | -- | 1 | -- |

Table 8 continues

Table 8 continued

| | FTE | | Appointment Type | | Gender | | Faculty Rank | | | |
|--|------------------|------------------|------------------|-------------------|-------------|---------------|--------------|------------------|------------------|-------------------|
| | <u>Full-time</u> | <u>Part-time</u> | <u>Tenure</u> | <u>Non-tenure</u> | <u>Male</u> | <u>Female</u> | <u>Full</u> | <u>Associate</u> | <u>Assistant</u> | <u>Instructor</u> |
| West Texas A&M University | 1 | -- | 1 | -- | 1 | -- | -- | -- | 1 | -- |
| Minors | | | | | | | | | | |
| Clemson University | 4 | -- | 3 | 1 | 4 | -- | 1 | 2 | -- | 1 |
| New Mexico State University | -- | -- | -- | -- | -- | 1 | -- | -- | -- | -- |
| Southern Illinois University | 1 | -- | 1 | -- | 1 | -- | -- | 1 | -- | -- |
| University of Idaho | 1 | -- | -- | 1 | -- | 1 | -- | -- | -- | 1 |
| Concentration/specialization/emphasis/option | | | | | | | | | | |
| Pennsylvania State University | 1 | -- | -- | 1 | 1 | -- | -- | -- | -- | 1 |
| University of Arkansas | 4 | -- | 3 | 1 | 1 | 3 | 1 | 1 | 1 | 1 |
| Total | 51.75 | 19.00 | 43.00 | 41.00 | 34.50 | 51.00 | 18.00 | 12.00 | 13.00 | 28.50 |

Note: Total percentages may not equal 100 due to rounding.

Table 8 displays faculty demographic information of each institution by degree program. Programs varied in number of faculty, tenure/non-tenure track, gender and rank. Per program there are an average of 2.4 full-time faculty (SD = 2.2), 2.5 part-time faculty (SD = 1.5) with an average of 1.8 males (SD = 2.0) and 2.4 females (SD = 2.3). On average at every institution, a full professor teaches 2 courses (SD = 1.4) per semester/quarter, associate professor 3.5 courses (SD = 3.3), assistant professor 2.6 courses (SD = 1.5), and instructor 2.6 courses (SD = .81) per semester. Furthermore, 77.2% of institutions ($n = 17$) plan to hire an average of 1.3 new faculty members (SD = .61) within the next five years and 22.8% ($n = 5$) do not plan to hire any new faculty. Some programs 28.5% ($n = 6$) foresee losing 1.5 current faculty members (SD = .83) to retirement or resignation in the next five years; 71.5% ($n = 15$) do not anticipate faculty loss.

Table 9 presents the total number of graduates in the last academic year (2012-2013) and their employment information. The data are displayed by program type.

Table 9

Graduate and Employment Information (N = 21)

| | Number of graduates | | Agricultural communications | | Other agriculture | | Graduate/professional school | | Outside agriculture | | Outside communications | |
|--|---------------------|-----------|-----------------------------|-----------|-------------------|-----------|------------------------------|-----------|---------------------|-----------|------------------------|-----------|
| | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> | <u>M</u> | <u>SD</u> |
| Major (n = 15) | 23.90 | 26.93 | 10.90 | 6.60 | 2.40 | 3.45 | 3.46 | 4.98 | 3.80 | 11.42 | 1.50 | 4.09 |
| Minor (n = 4) | 8.75 | 3.94 | 1.25 | 0.95 | 5.50 | 2.64 | 1.75 | 2.36 | 0.25 | .50 | 2.50 | 3.78 |
| Concentration/ specialization/ emphasis/ option (n = 2) | 6.00 | 5.65 | 1.50 | -- | 1.00 | -- | 1.50 | -- | 1.50 | -- | 2.50 | .70 |

Programs with majors are graduating an average of 23.90 students per year, 8.75 students from programs with minors, and 6.00 students per concentration/specialization/emphasis/option programs. Agricultural communications majors were more likely to find a job within agricultural communications while minors found jobs in other aspects of agriculture. Students graduating from a concentration/specialization/emphasis/option program were more likely to find a job outside communications.

Program Development

Table 10 relates to program needs. Respondents were asked to rank where they believed their program ranked in comparison to other agriculture-related academic programs at their given institution. Respondents evaluated their program in regards to funding, space, and support as being in the top 1-25%, 26-50%, 51-75%, or bottom 76-100% when compared to other programs.

Table 10

Program Resources (N = 22)

| | Top 1-25% | | 26-50% | | 51-75% | | Bottom 76-100% | | Do not know | |
|---------|-----------|----------|----------|----------|----------|----------|----------------|----------|-------------|----------|
| | <i>f</i> | <i>%</i> | <i>f</i> | <i>%</i> | <i>f</i> | <i>%</i> | <i>f</i> | <i>%</i> | <i>f</i> | <i>%</i> |
| Funding | 1 | 4.5 | 0 | 0 | 4 | 18.1 | 9 | 40.9 | 8 | 36.3 |
| Space | 0 | 0 | 3 | 13.6 | 3 | 13.6 | 9 | 40.9 | 7 | 31.8 |
| Support | 0 | 0 | 2 | 9.0 | 6 | 27.2 | 8 | 36.3 | 6 | 27.2 |

Note: Total percentages may not equal 100 due to rounding.

Table 10 displays respondents' views on where their program ranked, in terms of funding, space and support, when compared to other agriculture-related academic programs at their institution. In regards to funding, space and support, a majority of respondents believed their program was in the bottom 76-100%. The second most common answer was that

respondents were not sure of their program's comparison of funding, space and support with other agriculture-related programs at their institution.

Respondents were also asked to rank from one to eight which types of support they believed would most enhance and benefit their program. The data revealed programs need more faculty (1), graduate students and support staff (2), support for scholarships (3), program enrichment funds (4), technology for teaching (5), respect (6), and funding for travel/professional development (7). An "other" (8) option was given and in one instance better coordination with the school of communication was given as a type of support that most enhance and benefit the program.

Data revealed that there was no discernable difference in salaries ($n = 11$) in agricultural communications faculty salaries, when compared to others at the institution, followed by less than most ($n = 6$), better than most ($n = 3$) and did not know ($n = 2$).

For the qualitative portion of this study, open-ended questions were developed to gain further insight on certain topics. Two of those questions asked about the biggest challenges facing agricultural communications programs nationwide and challenges of respondents' individual programs. Qualitative analysis in NVivo 9 resulted in descriptive nodes, or themes, that became the findings of this portion of the study.

In regard to the individual needs of agricultural communications academic programs today, two emergent themes were identified. Both "recruitment" and needing more "faculty" were established as themes. The theme of "recruitment" often related to recruiting enough students and enough quality students to choose agricultural communications as a degree path.

Respondent: *Getting the right type of students who understand and have hands-on experience in agriculture.*

Respondent: *Attracting and recruiting high-ability students, as admission criteria get more stringent at the university level.*

“Faculty” also surfaced as a theme for individual programs’ biggest challenge. Respondents indicated the need for more faculty members to meet current program demands.

Respondent: *The number of years of experience in agricultural communications faculty positions (among) our full-time (faculty is a challenge). Also, our partial appointment faculty (assistant/associate professors of practice) are full-time communications professionals in a unit where they are expected to charge time to client accounts. Teaching assignments are difficult to make based on the unpredictable schedule of these folks. Also, they were assigned their teaching duties in reorganization, not asked if they were interested in or prepared for teaching.*

Respondent: *Faculty to teach more agricultural specific communications courses.*

Respondent: *FTE. We could place more students, but I don't want to overtax faculty.*

Additionally, “faculty” and “legitimacy” were established as themes for the biggest challenge of agricultural communications discipline nationwide. The need for more faculty members and graduate students with experience again resurfaced as well as agricultural communications being considered a legitimate discipline in research and beyond.

Respondent: *Hiring. We don't have enough PhDs and we "steal" them from other programs. I believe industry also needs PhDs in this area.*

Respondent: *Not enough well trained faculty or new faculty to meet the growing demand.*

Respondent: *Legitimacy. Ag. Comm is too skills based and not research/funding based.*

Respondent: *Legitimacy and the need to project strong scholarship.*

Respondents were asked the degree to which they believed a national accreditation system would impact the overall discipline and their program. A Likert-type scale of strongly agree, agree, neither agree or disagree, disagree, and strongly disagree was used to gain these responses about a national agricultural communications accreditation system.

Table 11

National Accreditation System (N = 22)

| Impact Discipline | | | | | Impact Program | | | | | | | | | | | | | | |
|-------------------|----------|----------|----------|-----------|----------------|----------|----------|----------|-----------|---|------|----|------|---|------|---|-----|---|-----|
| <u>SA</u> | <u>A</u> | <u>N</u> | <u>D</u> | <u>SD</u> | <u>SA</u> | <u>A</u> | <u>N</u> | <u>D</u> | <u>SD</u> | | | | | | | | | | |
| <i>f</i> | <i>%</i> | <i>f</i> | <i>%</i> | <i>f</i> | <i>%</i> | <i>f</i> | <i>%</i> | <i>f</i> | <i>%</i> | | | | | | | | | | |
| 4 | 18.2 | 11 | 45.4 | 4 | 18.1 | 2 | 9.0 | 2 | 9.0 | 3 | 13.6 | 11 | 50.0 | 5 | 22.7 | 2 | 9.0 | 1 | 4.5 |

Note: Total percentages may not equal 100 due to rounding.

In Table 11, frequencies and percentages are displayed indicating the extent to which respondents strongly agreed (SA), agreed (A), neither agreed or disagreed (N), disagreed (D) and strongly disagreed (SD) with a national accreditation system impacting the discipline and the specific academic program. More than half of respondents (63.9%) agreed or strongly agreed that such a system would ultimately impact the discipline as whole and impact the specific programs (63.6%).

Respondents were also asked an open-ended question to share their thoughts on how they believed an accreditation system would impact the discipline. Three themes were established from the responses. “Consistency,” “legitimacy,” and “division” were the identified themes about the impact of an accreditation system. In terms of “consistency,” respondents believed a system would improve curricular consistency across programs nationwide and set a standard for every program to achieve.

Respondent: *Bring consistency among some core courses.*

Respondent: *It would allow us to compare ourselves to established national standards, which in turn is helpful for evidence when approaching administrators. Additionally would help when creating and renovating curriculum - knowing what standards across the country are.*

Respondent: *It helps administrators compare programs—apples to apples—across the country.*

Some respondents indicated a system would improve the legitimacy of the discipline, especially in other programs' and administrators' eyes.

Respondent: *Accreditation will imbue the program with greater legitimacy. It will also assist considerably in creating guidelines to achieve excellence.*

Respondent: *It might show college administrators the importance of agricultural communications in a land-grant college of agriculture.*

Other respondents believed an accreditation system would create "division," limit smaller programs, and create a sense of bureaucracy/political regulations.

Respondent: *I think it adds another level of bureaucracy that small academic programs would struggle with. It sounds good in theory, but I don't think it would improve the smaller programs.*

Respondent: *It would put restrictive policies in place, creating a heavier burden on faculty and program. This could possibly mean the elimination of the program.*

Respondent: *Create divides between other faculty (members) who teach in other areas.*

RO5: To identify those agricultural communications academic programs held in the highest professional regard from peers across the country.

Table 12 shows a ranking of agricultural communications program across the United States. Respondents were asked to identify and rank what they believed to be the top agricultural communications programs. Below are the results of these rankings from the top ranked program to the tenth program.

Table 12

Top Agricultural Communications Programs (N = 17)

| Program | First rank (5 points) | Second rank (4 points) | Third rank (3 points) | Fourth rank (2 points) | Fifth rank (1 point) | Total points |
|---|--------------------------|------------------------------|-----------------------------|------------------------------|----------------------------|-----------------|
| 1. Texas Tech University | 3 | 7 | 1 | 1 | 0 | 48 |
| 2. University of Florida | 5 | 1 | 5 | 0 | 3 | 47 |
| 3. Oklahoma State University | 4 | 2 | 4 | 3 | 1 | 47 |
| 4. Texas A&M University | 2 | 3 | 3 | 0 | 2 | 30 |
| 5. Kansas State University | 2 | 2 | 1 | 1 | 1 | 25 |
| 6. Ohio State University | 1 | 0 | 1 | 2 | 1 | 13 |
| 7. University of Arkansas | 0 | 1 | 0 | 4 | 1 | 13 |
| 8. California Polytechnic State University | 0 | 0 | 1 | 2 | 0 | 7 |
| 9. University of Nebraska- Lincoln | 0 | 1 | 0 | 0 | 0 | 4 |
| 10. Purdue University | 0 | 0 | 0 | 1 | 2 | 4 |

Table 12 displays the top-ranked agricultural communications undergraduate programs nationwide as ranked by their peers participating in this study. The top 10 programs are listed, with Texas Tech University as the top-ranked program. Five points were awarded for each first place vote, four points for second place votes, and so on. In three instances, ties were revealed from the data. The program with higher ranked votes was used to break the tie.

In summary, this study used descriptive statistics (means, percentages, and frequencies) to create an updated review of undergraduate agricultural communications programs across the country. A total of 41 programs were identified. Teaching methods, courses, graduate information, program development efforts, needs, and more vital data related to programs were described and presented.

Reflexivity Statement

The researcher is a graduate of an agricultural communications undergraduate program and is currently pursuing a Master of Science degree with a focus in agricultural communications. The researcher comes from an agricultural background with experience as an ACT member and officer, student leader, completed multiple agricultural communications internships, and regional and national research conferences. The researcher is skilled in the methods of qualitative research and aligns herself with the constructivist paradigm. The researcher has teaching experience in an agricultural communications program, having served as a teaching assistant for multiple agricultural communications courses. Because of her experiences in two well-established agricultural communications programs, she has a diverse background in agricultural communications and possesses some pre-conceived notions of what students should be taught, how instruction should happen and what makes a quality department and program. These experiences and beliefs are the lens through which the researcher views the qualitative data and descriptions in this study.

Key Findings

Below is a list of the key aggregated findings that resulted from responses by the 26 faculty members who participated in the survey on behalf of their academic programs.

- A total of 41 agricultural communications undergraduate programs were identified nationwide.
- Agricultural communications programs are most commonly referred to as “agricultural communications” or “agricultural communication,” and a majority are housed in colleges of agriculture.

- A Bachelor of Science degree is the degree agricultural communications students receive at the four-year institutions participating in this study.
- The average student enrollment is 66 students per program.
- Of the responding institutions, a majority of programs rely on an outside program to teach introductory journalism (fundamentals of journalism) courses.
- A total of 36 different communications-related courses, taught both inside and outside of the department, were reported as being required for all degree program types.
- Capstone courses and internships are required elements of a majority of agricultural communications degree programs.
- More women are faculty members than men in agricultural communications programs.
- Associate professors teach the most courses per semester.
- Students majoring in agricultural communications are more likely than students with minors and concentrations/specializations/emphases/options to enter a career in agricultural communications.
- Agricultural communications faculty reported their programs need more funding, space, and support especially when compared to other agriculture-related counterparts.
- Respondents believe an accreditation system for agricultural communications would impact both the discipline and individual programs.
- The top five programs perceived as being held in the highest professional regard are Texas Tech University, University of Florida, Oklahoma State University, Texas A&M University, and Kansas State University.

V. Conclusions and Recommendations

Conclusions, Implications, and Recommendations

This study sought to describe and analyze undergraduate agricultural communications programs across the country, focusing specifically on the programs' basic characteristics, curriculum, teaching methods, faculty information, and academic growth and development. Chapter V consists of an in-depth interpretation of the findings from the previous chapter. The conclusions will be followed by implications and recommendations for agricultural communications researchers who intend on doing further research on this topic, as well as for academic programs and educators to use as a reference and guide for future program development.

ROI: To create an updated accounting of existing national agricultural communications academic programs.

Doerfert and Cepica (1991) noted relatively few researchers have examined the current status of agricultural communications, and Miller, Stewart and West (2006) noted the discipline should be constantly analyzed to question its purpose and find new direction to grow and progress. This study identified and verified a total of 41 agricultural communications programs nationwide. A total of 26 respondents from these programs participated in the study. Programs were identified via the National ACT database initially and were then verified by institutional websites, Internet searches, similar research (Ahrens, 2014), and personal communication.

Doerfert and Cepica (1991) compiled a list of 30 known agricultural communications programs nationwide. While some programs have closed in the last two decades, even more have opened. Forty-one agricultural communications programs were identified and verified in this 2014 study. Similar studies (Weckman, Witham, & Telg, 2000a; Weckman, Witham, &

Telg, 2000b) were conducted on both a regional (southern) and a national level nearly 14 years ago. A total of 14 programs were reported in the South, of which nine programs responded, and 22 programs responded nationwide. (The national study by Weckman, Witham, and Telg [2000a] did not indicate a total number of programs nationwide but only a number of programs that responded.)

The fact some programs have ceased while even more have emerged should be of specific interest to those who are interested in tracking the discipline's growth. Acquah (2010) noted that most program lifecycles follow a bell curve, but that some programs may follow an S-shaped curve. If U.S. agricultural communications programs follow the more common bell curve, with a net increase of at least 11 new programs over 24 years, it is likely that disciplinary growth nationwide is still on the rise. Additionally, this increase in agricultural communications academic programs over the last two decades is likely a result of an increased demand for agricultural communications practitioners and an increase in popularity of the discipline among college students and college-bound high school students.

RO2: To describe demographic characteristics of national agricultural communication programs.

This study discovered agricultural communications programs are diverse in structure, degree type, faculty and courses. This finding aligns with Reisner's (1990) study that the most predominant characteristic of agricultural communications programs was variety, and still remains true for the most part in 2014. Sprecker and Rudd (1998) noted as our world changes both socially and ecologically so must the instruction, curricula, and educational systems. This study aimed to provide the descriptive demographic and other data to evaluate whether or not agricultural communications undergraduate programs are staying true to Sprecker and Rudd's

recommendations. Tucker (1996) instructed the discipline that agricultural communications would ultimately benefit from thorough critiques of its methods and objectives, which aligned with this study's focus. Research is the most valuable tool to understand current agricultural communications programs so educators can improve upon current methods, curricula, courses, and program direction (Boone, Meisenbach, & Tucker, 2000).

Program information

This study found a majority of programs are called “agricultural communication” or “agricultural communications.” Some programs are called “agricultural science, communication, and leadership,” “agricultural communication and journalism,” and “agricultural media and communication.” Ultimately, this finding suggests the common theme present among all programs is a focus on agriculture or sciences, with a second, equally important focus on communications. All responding programs offered a bachelor's degree (with a major, minor, or concentration/specialization/emphasis/option), except one (Connors State College), which offered an associate's degree in agricultural communications. All but one program was housed in a college of agriculture. One program was housed both in a college of agriculture and college of media and another in a college of arts, humanities, and social sciences. Therefore, most programs in this growing discipline remain housed in colleges of agriculture.

Agricultural communications programs also vary in age. Some programs began in the early 1900s, and the newest program at North Dakota State University began in 2009. The vast differences in program age allow the opportunity for newer programs to model themselves after the older, established programs and for developing programs to use other successful, older programs as models for development.

Student enrollment

Student enrollment in these programs varied from 7 total students enrolled to 360 total students. The average student enrollment per institution was 66 students. The average enrollment in 2014 is more than double of the average 29 students Doerfert and Cepica reported in 1991. Weckman, Witham, and Telg (2000a) reported an average of 36.63 students per program. The increase in student enrollment suggests a growth and awareness of the academic discipline of agricultural communications and possibly strengthens support for the presence of a growing industry demand for agricultural communicators.

In the past five years, a majority of programs (69.3%) saw a student enrollment increase, and 88% of respondents predicted enrollment growth in the future, which would equal more students entering the workforce as agricultural communicators. It is apparent students are becoming more aware of career opportunities in the discipline and that academic programs are attentive to these opportunities for students as well.

RO3: To describe the status of agricultural communications programs' curriculum based on the following broad characteristics: courses offered and required, specific program development efforts, specific curriculum development efforts, and teaching methods.

Though agricultural communications programs have remained diverse in their structures and offerings, as Reisner (1990) observed two decades ago, some common characteristics have emerged. Twenty-three responding institutions operated on a semester hour system, except one institution (California Polytechnic State University) making program comparisons simpler than in the past. Examples of common characteristics include a relatively heavy emphasis on practical communications coursework, teaching methods that include experiential learning and

methods that focus on higher-order cognitive skills. Additionally, capstone courses are common among most agricultural communications curricula.

Agricultural communications courses

For those students majoring in agricultural communications, 30% of their coursework is communication-focused. Many of the introductory courses, especially introductory journalism courses and public relations courses, are taught outside the agricultural communications program. Programs are also expanding and adding courses to offer students a wider-variety of experiences in the classroom to better prepare them to enter the industry. Course expansion may be perceived as programs following past program development research suggestions to offer students more diverse course options, which would allow for specialization. The addition of more courses could also be explained as a reaction to the changes in technology development and overall evolution of agricultural communications. Only four institutions planned to drop any of their courses.

Sprecker and Rudd (1998) established agricultural communications courses “should teach students to conduct communication campaigns and to manage issues, especially crisis situations, because communicators spend much time responding to issues beyond their control” (p. 36). Where Reisner (1990) saw an issue with agricultural communications curriculum was the fact students were not required to take theory-based courses like public policy or ethics in agriculture, creating a void in the education experience. Terry et al. (1994) suggested curriculum should allow students to specialize in agriculture, while also developing their communications skills through practical coursework in communications toward the end of the degree program.

Internships and capstone courses

Interpersonal networking and internships are an essential element of agricultural communications course work (Sprecker & Rudd, 1998). A majority of programs with majors and concentration/specialization/emphasis/options required both capstone courses and internships. This further proves programs and educators understand an internship refines skillsets, improves college performance, and increases job opportunities (Knouse, Tanner, & Harris, 1999). These required internship courses allow students to connect what they have learned in the classroom and apply those skills to a real-world situation. The educational process truly comes full circle when students use and understand the skillsets they have acquired in the classroom setting. Repeatedly in research on skills acquisition in a real-world setting, internships are valued as an integral part of the undergraduate students' learning experiences. The same applies for the capstone or "crowning course" of undergraduate programs (Nisson & Fulton, 2002). A majority of programs with majors and concentration/specialization/emphasis/options require a capstone course, which allows students to connect once disjointed information from all undergraduate courses. Capstone courses typically include learning objectives like problem solving and communication skills to wrap up the students' last year of undergraduate education (Nisson & Fulton, 2002). The most common capstone courses reported in this study are publication design and production, communications campaigns/strategies, senior creative projects, web design, and seminar/general capstone courses.

Even though a majority of programs with majors indicated their program requires both an internship and capstone course, some did not require one or the other. Some programs, such as minors and concentration/emphasis/specialization/option programs, might rely on the students' program major to be the source of capstone courses and internship experiences. In turn, a lack

of funding and faculty to oversee and teach such vital courses could also be a contributing factor as to why some programs do not require capstone courses or internships for their students. Capstone courses and internships are the embodiment of the constructivist approach in the agricultural communications discipline. Constructivism promotes engaging interactions, problem solving, and inquiry by students the same skills and experiences students undergo in internships and capstone courses (Abdal-Haqq, 1998). If the discipline intends on maintaining this approach, increasing support for capstone courses and internships will continue to be important.

Bloom's Taxonomy is a multi-tiered systematic process to understand the processes of thinking and learning. The taxonomy requires mastery of lower levels of thinking (knowledge, understanding, and application) before ultimately moving on to higher levels of learning like analysis, synthesis, and evaluation. This study confirmed agricultural communications programs use teaching methods that align with Bloom's Taxonomy. In the programs' first and second year courses, teaching methods like lecture-discussion, problem-based learning and collaborative learning to establish the lower levels of thinking and learning. In turn, the third and fourth year courses are employing teaching methods related to higher level of learning and thinking like analysis, synthesis, and evaluation. The most common teaching methods in those courses were problem-based learning, experiential/capstone/internships, and collaborative learning. The mastery of the different levels has been associated with teaching methods that promote problem solving skills, critical thinking skills and technology integration (Forehand, 2005).

Advisory committees

In Doerfert and Cepica's (1991) study, 79.3% of agricultural communications programs did not have an advisory committee to guide curricula and course development. Nearly 25 years later, this study found the exact opposite. A total of 75% of reporting programs indicated they indeed had an advisory committee. In the years since the initial Doerfert and Cepica (1991) study, it appears agricultural communications programs and faculty leading these programs likely understood the beneficial aspects an advisory committee could have. The inclusion of advisory committees aligns with Graham's (2001) and Tucker, Whaley, & Cano (2003) research findings that urged academic programs to develop and implement stronger curricula. Such advisory committees are also essential for program assessment (UCF, 2008). Of those programs that do have an advisory committee, 75.3% of the committees are comprised of agricultural communications professionals. Programs appear to be seeking insight directly from industry for course and program development. Having members of industry on these advisory committees clearly incorporates industry needs into academia. Industry professionals can offer specific program and course development expertise to better guide student preparation and skillsets. Meeting times varied from once to twice per year or on as needed basis for every program. Advisory committees are needed, but it could be concluded that meeting once or twice a year is a disciplinary trend.

RO4: To identify trends in program demographics and curriculum development.

Identifying current trends in agricultural communications undergraduate programs allows the discipline to see what changes are going on currently and what to expect/anticipate in the future. Currently an average of 2.4 faculty members (SD = 2.2) are full time and 2.5 are part time (SD = 1.5). Of those faculty members, 2.4 are females (SD = 2.3) and 1.8 are males (SD =

2.0). Another identified trend is that associate professors are teaching the highest number of courses, with 3.5 courses per semester, followed by assistant professors and instructors teaching 2.6 courses, and finally full professors with 2 courses per semester. These results could mean that assistant professors and instructors are given a lighter teaching load as they gain experience or to allow time for research.

Faculty gains and losses

Agricultural communications programs are anticipating both gain and loss in terms of faculty within the next five years. Seventy-seven percent of programs are planning to hire an average of 1.3 new faculty members ($SD = .61$) in the next five years, possibly to better handle the growth in their given academic programs. Conversely, 28.5% of programs reported anticipating losing an average of 1.5 faculty members ($SD = .83$) to resignation or retirement. These findings directly indicate the future demand for faculty members.

Graduate employment

Also, programs with agricultural communications majors graduate the largest number of students, and those students are more likely to enter the workforce in an agricultural communications profession. Both minors and concentration/specialization/emphasis/option graduates are less likely to take a job strictly in agricultural communications, but opt for another aspect of agriculture or outside of communications entirely. A conclusion can be made that agricultural communications majors are more likely to accept jobs directly in agricultural communications when compared to minors and concentration/specialization/emphasis/option graduates.

Program support

An overwhelming trend discovered in this study is a majority of respondents believed their agricultural communications programs fell into the bottom 76-100% of their institution's agriculture-related programs for funding, space, and support. These findings directly relate to those of Weckman, Witham, and Telg (2000a & 2000b). These results could indicate over the past 14 years, faculty still feel the same way about program support issues. The most common programs needs are faculty, graduate students/support staff, and funds for scholarships. In 2000, Weckman, Witham, and Telg's regional study reported that programs needed more faculty and program enrichment funds. The same is still true today. More administrative political support may be needed to make the changes necessary to alleviate these program needs for faculty, funding and graduate students/support staff. It is key to keep in mind that program needs will always exist, but the above-mentioned needs are the ones currently desired at most programs.

National accreditation system

Over the years and throughout the research, much discussion has arisen regarding a national accreditation system for the discipline of agricultural communications. This study has again brought the topic back into discussion. Proponents for such a system have said it could create an opportunity for the development of textbooks for instruction, improve internship contacts, help with funding issues, and in general help educators prepare for the future (Weckman, Witham, & Telg, 2000a). Weckman, Witham and Telg (2000a) found that 60% of respondents believed an accreditation system would ultimately help the discipline. This study found a large majority of respondents believed a system would impact the discipline (63.9%) and their individual programs (63.6%). Though some respondents noted qualitatively the impact of accreditation would be negative, research has shown time and time again that faculty would embrace an accreditation system, yet no program exists (Tucker, Whaley, & Cano, 2003). This

study revives the discussion about a national accreditation system once again, but the cycle will remain the same unless disciplinary leaders are willing to push for an accreditation system.

Because they so often serve as models for developing programs, it was important to determine which agricultural communications programs were held in the highest regard by their peers. In 1991, Doerfert and Cepica reported the University of Wisconsin-Madison, the University of Illinois, the University of Missouri-Columbia, Texas Tech University, the Ohio State University, and Iowa State University as those agricultural communications programs held in the highest professional regard. Since the early 1990s, other programs have risen in prestige. This study discovered that now Texas Tech University is the top ranked program in the opinion of 17 peers from the across the country who responded to this question. The programs at the University of Florida, Oklahoma State University, Texas A&M University and Kansas State University follow Texas Tech University's program. Programs change and go through life cycles, as noted by Acquah (2010). Programs grow and develop, typically on a bell curve, but sometimes on a repeating S-curve, which could explain the changes in highly ranked agricultural communications programs over the years.

Recommendations for Agricultural Communications Educators and Academic Programs

The purpose of this research was to describe the current and future direction of agricultural communications programs across the United States. This study now offers refreshed and modernized data and conclusions pertaining to agricultural communications programs. Outdated research and data have now been updated, much like what past research calls for. Tucker (1996) noted, "Agricultural communication cannot only survive, but benefit from a thorough critique of its methods and objectives." (p. 37).

First, educators need to continue using teaching methods that align with Bloom's Taxonomy and constructivist theory. It is one thing to understand educational theory, but putting it into action in a classroom setting is another. First and second year courses need to be developed to focus on the lower levels of thinking and learning. As those lower level skills and concepts are mastered, higher level teaching methods such as experiential/capstone/internship and problem-based learning can be used in third and fourth year courses. Many successful programs responding to this study are following this mode of curriculum development.

A second recommendation for educators and academic programs is that capstone courses and internships are vital to any program. These experiences need to be included and prioritized in course curriculum. Both act as a holistic element of students' undergraduate education. The courses most often implemented, as capstones are publication design and production, communications campaigns/strategies, senior creative projects, and web design.

Additionally, if a program currently does not have an advisory committee, the benefits of taking the time to establish one and select the most appropriate members more than outweigh the negative aspects. These committees should be comprised of industry professionals to offer current insight. The advisory committee meetings should be focused to discuss curricula and program direction as well as administrative support issues.

Lastly, there needs to be a renewed effort to decide whether or not a national accreditation system would be impactful to the discipline, as many respondents in this study believed it would be. A veteran faculty leader in the discipline needs to encourage open and active discussion on the positive and negative aspects of such a system.

Recommendations for Further Research

The goal of this research was to create an updated description on the current status of agricultural communications academic programs nationwide. A main reason this study was conducted was because of the fact that the last three similar studies were conducted 14 and 23 years ago. The discipline has changed, developed, and evolved in the years since the last studies were conducted. The first recommendation for further research would be to conduct descriptive national studies on a regular basis to achieve the best and most accurate responses to understand programs' current standing. Program descriptions and evaluations need to be conducted more frequently, with similar constructs measured to allow for longitudinal comparisons. Similar studies could also be conducted to gain more in-depth data with a narrower focus. A narrower focused study could include investigating only the teaching methods, specific communications courses, or faculty and student demographics.

Secondly, a study with a higher response rate would increase the accuracy of describing all agricultural communications programs nationwide. A substantial response rate (63.4%) was obtained in this study, but more responses would only improve the descriptions of agricultural communications programs.

In relation to the previous two recommendations, program demographics could be correlated along with other statistical tests to reveal further information and vital data about agricultural communications programs. This study sought to establish a basic description of agricultural communications programs, but further research and more in-depth statistical analyses could be performed, especially with regard to differences among types, sizes, and ages of programs.

Finally, specific regional studies (North Central, Southern, and Western) should be conducted to describe programs in these specific locations along with identifying their needs and future plans. Variation could be seen between these geographic locations due different regional industry-related needs and overall program demographics. In addition to regional and nationwide studies, agricultural communications academic programs are emerging on an international forefront. Further research and discussion could be conducted to identify these programs and what they are teaching.

VI. References

- Abdal-Haqq, I. (1998). Constructivism in teacher education: Considerations for those who would like practice to theory. *ERIC Clearinghouse on Teaching and Teacher Education*. 1-7.
- Acquah, E. H. K. (2010). A growth model for academic program life cycle (APLC): A theoretical and empirical analysis. *The 50th Forum of the Association of Institutional Research*. Chicago, IL: 1-27.
- Ahrens, C. A. (2014). *Understanding communication apprehension and writing apprehension in agricultural communications students: A national study*. (Unpublished doctoral dissertation). Texas Tech University, Lubbock, TX.
- Ary, D., Jacobs, L. C., & Razavieh, A. (1996). *Introduction to Research in Education* (5th ed.). Fort Worth, TX: Harcourt Brace College Publishers.
- Bailey-Evans, F. (1994). *Enhancing the agricultural communications curriculum: A national Delphi study*. Unpublished doctoral dissertation, Texas Tech University, Lubbock, TX.
- Boone, K., Meisenbach, T., & Tucker, M. (2000). *Agricultural communications: Changes and challenges*. Ames, IA: Iowa State University Press.
- Boone, K., Paulson, C. E., & Barrick, R. K. (1993). Graduate education in agricultural communication: The need and role. *Journal of Applied Communications*, 77(1). 16-26.
- Brooks, S. E., Frick, M., & Bruening, T. H. (2006). How are land grant institutions internationalizing undergraduate agricultural studies? *Journal of Agricultural and Extension Education*, 13(3). 91-102.
- Burnett, C., & Tucker, M. (2001). *Writing for agriculture: A new approach using tested ideas*. Dubuque, IA: Kendall/Hunt Publishing Co.
- Cooper, B. E., & Bowen, B. E. (1989). Agricultural communications curriculum: Perceptions of Ohio State graduates. *ACE Quarterly*, 73(2), 11-16.
- Coorts, G. D. (1987 June). Updating today's college curriculum for tomorrow's agriculture. *North American Colleges and Teachers of Agriculture Journal*, 20-21.
- Devitre, D. (2008, July). Doug Devitre Delivers!. How Adults Learn to Use Technology Effectively. Retrieved from <http://retechtraining.wordpress.com/2008/07/16/>
- Dillman, D. A. (2007). *Mail and Internet surveys the tailored design method*. (2nd ed.) Hoboken, NJ: John Wiley & Sons, Inc.
- Doerfert, D. (2003). Skate to where others are heading. *Journal of Applied Communications*, 87(4), 39-41.

- Doerfert, D. & Cepica, M. (1991). The current status of agricultural communications/journalism programs in the United States. Center for Agricultural Technology Transfer (CATT), Texas Tech University, Lubbock.
- Doerfert, D. L., & Miller, R. P. (2006). What are agricultural industry professionals trying to tell us? Implications for university-level agricultural communications curriculum. *Journal of Applied Communications*, 90(3), 17-31.
- Finch, C. R. & Crunkilton, J. R. (1999). *Curriculum development in vocational and technical education: Planning, content, and implementation*. Boston: Allyn and Bacon.
- Forehand, M. (2005). Bloom's Taxonomy: Original and revised. In M. Orey (Ed.), *Emerging perspectives on learning, teaching, and technology*.
- Fritz, S. & Brown, F. W. (1998). Leadership education courses and programs in departments of agricultural education. *Journal of Agricultural Education*, 39(3), 57-62.
- Fryar, M., & Miller, J. D. (2006). Arkansas employer perceptions of curriculum needs for the University of Arkansas agricultural communications program. Proceedings of the Association for Communication Excellence Conference. Ontario, Canada.
- George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update* (4th ed.). Boston: Allyn & Bacon.
- Gliem, J. A., & Gliem, R. R. (2003). Calculating, interpreting, and reporting alpha reliability coefficient for likert-type scales. Midwest Research to Practice Conference in Adult, Continuing, and Community Education. Columbus, OH: 82-88.
- Graham, D. L. (2001). Are we preparing the society ready to graduate? Paper presented at the National Agricultural Education Research Conference. New Orleans, LA.
- Huberman, A. M., & Miles, M. B. (2002). *The qualitative researcher's companion*. Thousand Oaks, CA: Sage Publications.
- Irani, T., & Scherler, C. (2002). Job satisfaction as an outcome measure of the effectiveness of an agricultural communications undergraduate program. *Journal of Agricultural Education*. 43(1), 12-23.
- Jones, B. L. & Bjelland, D. (2004). International experiential learning in agriculture. Paper presented at Association for International Agricultural and Extension Education meeting, Dublin, Ireland.
- Knouse, S. B., Tanner, J. R., & Harris, E. W. (1999 March). The relation of college internships, college performance, and subsequent opportunity. *Journal of Employment Counseling*. 36. 35-43.

- Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage Publications, Inc.
- Littlejohn, S. W., & Foss, K. A. (2009). *Encyclopedia of communication theory*. (Vol. 1). p. 179-183. Thousand Oaks, CA: SAGE Publications, Inc.
- McMillan, J. H., & Schumacher, S. (2010) *Research in education: Evidence-based inquiry*. (7th ed.) Boston: Pearson/Allyn and Bacon.
- 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 SAAS Agricultural Communications Meeting. Quebec City, Quebec, Canada.
- Morgan, A. C. (2012). Competencies needed by agricultural communication undergraduates: A focus group study of alumni. *Journal of Applied Communications*, 96(2), 17-29.
- Morgan, A. C. (2009). *Competencies needed by agricultural communication undergraduates: An industry perspective*. Paper presented at the Southern Association of Agricultural Scientists conference, Atlanta, GA.
- Morgan, A. C., King, D. L., Rudd, R. D., & Kaufman, E. K. (2013). Elements of an undergraduate agricultural leadership program: A delphi study. *Journal of Leadership Education*, 12(1). 140-155.
- Newcomb, L. H. & Trefz, M. K. (1987 June). Toward teaching at higher levels of cognition. *NACTA Journal*. 26-30.
- Nilsson, T. K. H., & Fulton, J. R. (2002). The capstone experience course in agricultural curriculum. Paper presented at Agricultural Economics Association meeting, Long Beach, CA.
- Powell, K. C., & Kalina, C. J. (2009). Cognitive and social constructivism: Developing tools for an effective classroom. *Education*. 130(2). 241-250. Project Innovation, Inc.
- Reisner, A. (1990). An overview of agricultural communications programs and curriculum. *Journal of Applied Communications*, 74(1), 8-17.
- Sandelowski, M. (1986). The problem of rigor in qualitative research. *Advances in Nursing*. 8(3). Aspen Publishers, Inc. 27-37.
- Scott, M. D. (1992). Internships add value to college recruitment. *Personnel Journal*. 71(4), 59-63.

- Simon, L. A., Haygood, J. D., Akers, C. L., Doerfert, D. L., Davis, C. S., & Bullock, S. (2005). Master's level agricultural communications curriculum: A national Delphi study. *Journal of Agricultural Education, 46*(3), 56.
- Sitton, P. S. (2001). "Capstone experience: The key to a successful agricultural communications program." *Journal of Southern Agricultural Education Research, 51*, 1-3.
- Sprecker, K. J., & Rudd, R. D. (1997). Opinions of instructors, practitioners, and alumni concerning curriculum requirements of agricultural communication students at the University of Florida. *Journal of Agricultural Education, 38*(1), 6-13.
- Sprecker, K. J., & Rudd, R. D. (1998). Opinions of practitioners concerning curricular requirements of agricultural communication students at the University of Florida. *Journal of Applied Communications, 82*(1), 31-42.
- Terry, R., Vaughn, P. R., Vernon, J. S., Lockaby, J., Bailey-Evans, F., & Rehrman, M. (1994). *Enhancing the agricultural communications curriculum. A vision for the future.* Unpublished manuscript, Lubbock, TX.
- Tucker, M. (1996). Ferment in our field: Viewing agricultural communication research from a social science perspective. *Journal of Applied Communications, 80*(4), 25-41.
- Tucker, M. (2004). Reply to Doerfert: a call to "skate" with caution. *Journal of Applied Communications, 88*(4), 25-27.
- Tucker, M., Whaley, S., & Cano, J. (2003). Agricultural Education and Agricultural Communications: Striking a proper balance in the academy. *Journal of Agricultural Education, 44*(1), 22-30.
- Tucker, M., Whaley, S. R., Whiting, L., & Agunga, R. (2002). Enhancing professionalism in academic agricultural communications programs: The role of accreditation. *Journal of Applied Communications, 86*(1), 28-50.
- University of Central Florida, (2008). Program assessment handbook guidelines for planning and implementing. *Operational Excellence and Assessment Support.* 1-96.
- Weckman, R., Witham, D., & Telg, R. (2000a). Characteristics of agricultural communications undergraduate programs: Findings from a national survey. US Agricultural Communicators' Congress, Washington, DC.
- Weckman, R., Witham, D., & Telg, R. (2000b). Southern agricultural communications undergraduate programs: A survey. *Journal of Applied Communications, 84*(4), 41-50.
- Wiersma, W. (1995). *Research methods in education: An introduction.* (6th ed.) Boston: Allyn and Bacon.

Wimmer, R. D., & Dominick, J. R. (2003). *Mass media research: An introduction*. (7th ed.). Belmont, CA: Wadsworth/Thomason Learning.

Zumalt, J. R. (2007). Identifying the core periodical literature of the agricultural communications documentation center. *Journal of Agricultural and Food Information*. 8(3). 43-63.

Appendices

VII. Appendix A

IRB Approval Letter



Office of Research Compliance
Institutional Review Board

October 30, 2013

MEMORANDUM

TO: Morgan Large
Catherine Shoulders
K. Jill Rucker
Emily B. Buck
Jefferson D. Miller

FROM: Ro Windwalker
IRB Coordinator

RE: New Protocol Approval

IRB Protocol #: 13-10-196

Protocol Title: *Characteristics of Undergraduate Agricultural Communications Programs*

Review Type: EXEMPT EXPEDITED FULL IRB

Approved Project Period: Start Date: 10/30/2013 Expiration Date: 10/29/2014

Your protocol has been approved by the IRB. Protocols are approved for a maximum period of one year. If you wish to continue the project past the approved project period (see above), you must submit a request, using the form *Continuing Review for IRB Approved Projects*, prior to the expiration date. This form is available from the IRB Coordinator or on the Research Compliance website (<http://vpred.uark.edu/210.php>). As a courtesy, you will be sent a reminder two months in advance of that date. However, failure to receive a reminder does not negate your obligation to make the request in sufficient time for review and approval. Federal regulations prohibit retroactive approval of continuation. Failure to receive approval to continue the project prior to the expiration date will result in Termination of the protocol approval. The IRB Coordinator can give you guidance on submission times.

This protocol has been approved for 30 participants. If you wish to make *any* modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior* to implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 210 Administration Building, 5-2208, or irb@uark.edu.

VIII. Appendix B

Survey Instrument

Characteristics of Agricultural Communications Undergraduate Programs

Q1 What is the name of your agricultural communications program? (Agricultural Communications, Agricultural Journalism, etc.)

Q2 Note: Though degree programs in this discipline have various names, for the purpose of standardization the term agricultural communications will be used generically in reference to the programs you listed above. What is the name of your institution (college/university)?

Q3 If applicable, in which college is your agricultural communications program housed? If not applicable, leave blank.

Q4 What is the name of the department, service unit, or affiliated program/unit that houses your agricultural communications program? Please refrain from using abbreviations.

Q5 Which best describes the type of agricultural communications degree/program your institution offers? If more than one applies, choose more than one.

- Major (1)
- Minor (2)
- Concentration/specialization/emphasis (3)
- Other. Please explain. (4) _____

Q6 What is your program's position in the organizational structure?

- Program in own academic unit (1)
- Program in service unit (2)
- Program in multi-program unit (3)
- Shared program housed by more than one unit (4)
- Other. Please explain. (5) _____

Q7 In what year was the first degree program in agricultural communications established at your institution? (YYYY)

Q8 What type of degree is awarded to graduates of agricultural communications? (Please provide the EXACT name of the degree in the blank beside the correct degree status).

- Bachelor of Science (1) _____
- Bachelor of Arts (2) _____
- Concentration/specialization/emphasis/option of a B.S. degree (3) _____
- Concentration/specialization/emphasis/option of a B.A. degree (4) _____
- Associate in Science (5) _____
- Associate in Arts (6) _____
- Other. Please specify. (7) _____

Q9 How many students total are currently enrolled in your undergraduate agricultural communications program?

Q10 Has your program's undergraduate enrollment increased, decreased, or remained constant over the past five years?

- Increased (1)
- Decreased (2)
- Remained constant (3)

Q11 In the next five years, what is your program's undergraduate enrollment goal: to increase, decrease, or remain constant?

- Increase (1)
- Decrease (2)
- Remain constant (3)

Q12 Is your undergraduate program based on quarter, semester, or trimester hours?

- Quarter hours (1)
- Semester hours (2)
- Trimester hours (3)

Q13 How many credit hours are required for graduation with an undergraduate degree in your program?

Q14 Of the total number of credit hours required for an associate's/bachelor's degree for your program, how many credit hours are communications-related courses?

Q15 Please list the titles of all communication-related courses taught in your unit that your agricultural communications students are required to take.

Q16 Please list the titles of all communication-related courses taught outside of your unit that your agricultural communications students are required to take.

Q17 In the next 5 years, does your program plan to add any agricultural communications classes to the current agricultural communications courses that are offered? If yes, please list the planned courses.

- Yes (1) _____
- No (2)

Q18 In the next 5 years, does your program plan to stop offering any agricultural communications classes from the current agricultural communications courses that are offered? If yes, please list the courses.

- Yes (1) _____
- No (2)

Q19 Does your program have project-based (capstone) courses?

- Yes (1)
- No (2)

If No Is Selected, Then Skip To Of the total number of hours required...

Q20 Please list the titles of your program's project-based (capstone) courses.

Q21 Of the total number of hours required for an associate's/bachelor's degree for your program, how many credit hours are required technical agriculture-related courses?

Q22 Which types of technical agriculture courses are required? Please mark all that are required.

- Animal sciences (1)
- Plant sciences (2)
- Agriculture-related social sciences (3)
- Food sciences (4)
- Horticulture (5)
- Soil science (6)
- Entomology (7)
- Other. Please list. (8) _____

Q23 Are agricultural communications service courses required or offered as a student choice for agricultural communications majors in your degree program?

- Required (1)
- Student choice (2)
- Not offered (3)

Q24 Do faculty members within your agricultural communications program teach agricultural communications service courses for students in other degree programs?

- Yes (1)
- No (2)

If Yes Is Selected, Then Skip To Please list the service course(s) tau...If Yes Is Selected, Then Skip To Please list the service course(s) tau...

Q25 Please list the service course(s) taught, provide the average enrollment in the course(s), and how often the course(s) are taught.

Q26 Does your degree program require an internship?

- Yes (1)
- No (2)

If No Is Selected, Then Skip To List your program's ...

Q27 How many credit hours are required for an internship?

Q28 For an internship, how many work hours equal one credit hour?

Q29 Does your program have an advisory committee?

- Yes (1)
- No (2)

If No Is Selected, Then Skip To Rank from 1 (most frequent) to 7 (lea...

Q30 Is your advisory committee comprised of agricultural communications professionals?

- Yes (1)
- No (2)

Q31 How often does the advisory committee meet?

- Less than once a year (1)
- Once a year (2)
- Twice a year (3)
- 3-4 times a year (4)
- Monthly (5)
- On an as needed basis (6)
- Not sure of meeting schedule (7)

Q32 Rank from 1 (most frequent) to 7 (least frequent) the teaching methods used in your program's agricultural communications first and second year introductory courses. Please drag and drop each option into place from 1 to 7. Ranked numbers will appear in green boxes on the right.

- _____ Lecture-discussion (1)
- _____ Collaborative learning (2)
- _____ Problem-based learning (3)
- _____ Demonstration (4)
- _____ Observation/field trip (5)
- _____ Experiential/capstone/internship (6)
- _____ Service learning (7)

Q33 If applicable, rank from 1 (most frequent) to 7 (least frequent) the teaching methods used in your program's agricultural communications third and fourth year advanced level courses. Please drag and drop each option into place from 1 to 7. Ranked numbers will appear in green boxes on the right.

- _____ Lecture-discussion (1)
- _____ Collaborative learning (2)
- _____ Problem-based learning (3)
- _____ Demonstration (4)
- _____ Observation/field trip (5)
- _____ Experiential/capstone/internship (6)
- _____ Service learning (7)

Q34 Rank from 1 (most frequent) to 7 (least frequent) the teaching methods used in your program's agricultural communications courses. Please drag and drop each option into place from 1 to 7. Ranked numbers will appear in green boxes on the right.

- _____ Lecture-discussion (1)
- _____ Collaborative learning (2)
- _____ Problem-based learning (3)
- _____ Demonstration (4)
- _____ Observation/field trip (5)
- _____ Experiential/capstone/internship (6)
- _____ Service learning (7)

Q35 Please provide the following information concerning ONLY the faculty involved in providing undergraduate instruction in the agricultural communications program.
Number of FTE (full-time equivalent) faculty:

Q36 Number of faculty (9-month or 12-month) who are:

- Full time (1) _____
- Part time (2) _____

Q37 Number of faculty who are:

- Tenure track (1) _____
- Non-tenure track (2) _____

Q38 Number of faculty who are:

- Male (1) _____
- Female (2) _____

Q39 Number of faculty who are:

- Full professor (1) _____
- Associate professor (2) _____
- Assistant professor (3) _____
- Instructor/lecturer (4) _____
- Other. Please specify. (5) _____

Q40 On average, how many courses did each faculty member teach each quarter/semester/trimester last year?

- Full professor (1) _____
- Associate professor (2) _____
- Assistant professor (3) _____
- Instructor/lecturer (4) _____
- Other. Please list. (5) _____

Q41 Does your program plan to hire any new faculty in the next five years?

- Yes (1)
- No (2)

If No Is Selected, Then Skip To

Is your program likely...

Q42 How many faculty members does your program plan to add?

- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)

Q43 Is your program likely to lose any faculty in the next five years (e.g., retirement, resignation, etc.)?

- Yes (1)
- No (2)

If No Is Selected, Then Skip To

How many students di...

Q44 How many faculty members is your program likely to lose?

- 1 (1)
- 2 (2)
- 3 (3)
- 4 (4)
- 5 (5)

Q45 How many students total did your program graduate in the last academic year?

Q46 Of this number, what is the number of those who have accepted jobs in agricultural communications?

Q47 Of this number, what is the number of those who have accepted jobs in some other aspect of agriculture?

Q48 Of this number, what is the number of those who have applied for or been accepted into graduate/professional schools?

Q49 Of this number, what is the number of those who have found employment outside agriculture?

Q50 Of this number, what is the number of those who have found employment outside communications?

Q51 Overall, how would you describe your agricultural communications program's approach to the preparation of students? Please enter the a number to indicate the percent of each. Please be sure the total percentage adds up to 100%.

- _____ Teaching professional competencies. (1)
- _____ Teaching broad-based critical-thinking skills. (2)
- _____ Teaching from a theoretical perspective. (3)

Q52 Which of the following do you believe best describes the funding your agricultural communications program receives in comparison with other academic agriculture-related programs in your institution?

- Top 1-25% (1)
- 26-50% (2)
- 51-75% (3)
- Bottom 76-100% (4)
- Do not know (5)

Q53 Which of the following do you believe best describes the space your agricultural communications program receives in comparison with other academic agriculture-related programs at your institution?

- Top 1-25% (1)
- 26-50% (2)
- 51-75% (3)
- Bottom 76-100% (4)
- Do not know (5)

Q54 Which of the following do you believe best describes the personnel support (faculty, FTE, support staff, graduate assistants) your agricultural communications program receives in comparison with other academic agriculture-related programs at your institution?

- Top 1-25% (1)
- 26-50% (2)
- 51-75% (3)
- Bottom 76-100% (4)
- Do not know (5)

Q55 Rank from 1 (most important) to 8 (least important) what types of support you believe would enhance your program. Please drag and drop the options in order from 1 to 8. Ranked numbers will appear in green boxes on the right.

- _____ More faculty (1)
- _____ More support for scholarships (2)
- _____ More respect (3)
- _____ More technology for teaching (4)
- _____ More funding for travel and professional development (5)
- _____ Graduate students and/or support staff (6)
- _____ Program enrichment funds (7)
- _____ Other (8)

Q56 How do you believe your program's faculty members' salaries compare with others in your institution?

- Better than most (1)
- No real discernible difference (2)
- Less than most (3)
- Do not know (4)

Q57 Please indicate the degree to which you agree or disagree with the following statement: A national agricultural communications accreditation process/system would impact the agricultural communications discipline.

- Strongly agree (1)
- Agree (2)
- Neither agree nor disagree (3)
- Disagree (4)
- Strongly disagree (5)

Q58 Please indicate the degree to which you agree or disagree with the following statement: A national agricultural communications accreditation process/system would impact your program.

- Strongly agree (1)
- Agree (2)
- Neither agree nor disagree (3)
- Disagree (4)
- Strongly disagree (5)

| | |
|---|---|
| If Strongly agree Is Selected, Then Skip To | How do you think an ...If Agree Is Selected, Then Skip To |
| | How do you think an ... |

Q59 How do you think an accreditation process would impact your program and the discipline?

Q60 What do you consider to be the biggest challenge facing your agricultural communications program?

Q61 What do you consider to be the biggest challenge facing all agricultural communications academic programs nationwide?

Q62 Please list, in order from #1 (best) to #5, the five agricultural communications programs that you hold in the highest professional regard.

- _____ 1 (1)
- _____ 2 (2)
- _____ 3 (3)
- _____ 4 (4)
- _____ 5 (5)

Q63 Do you work with any agricultural communications programs that may not be on the National ACT database or easily found by Internet searches both nationally and internationally? If so, please list the program and institution below and any available contact information.

Q64 Please list your name, academic title, and email address.

IX. Appendix C

Introductory Email o Department Heads of Agricultural Communications Undergraduate Programs

Good evening,

You have been identified as a department/unit head or equally qualified member of an agricultural communications academic program.

On Thursday of this week, I will be sending a link to a survey. I ask that you please either take the survey yourself or send the survey on to the most qualified faculty/staff member, so that your institution can be included in this study.

The research uses a census approach, and the survey is designed to characterize agricultural communications programs nationwide.

Please feel free to ask any questions. Otherwise, be looking for an email on Thursday!

Thank you,

Morgan Large
Graduate Teaching Assistant
University of Arkansas
230 AGRI
mmlarge@uark.edu

X. Appendix D

Initial Email to Department Heads of Agricultural Communications Undergraduate Programs

Good afternoon, Dr. _____!

You have been identified as a department/unit head of an agricultural communications academic program. I would like to ask you to send this email on to the faculty/staff member that is most knowledgeable about your agricultural communications program or take the survey yourself.

The study employs a census approach, and the research involves characterizing undergraduate agricultural communications programs across the country.

The survey should take 40 minutes of your time. I am asking you to take this survey by **Friday, April 4th at 5 p.m.** (CST).

The Institutional Review Board at the University of Arkansas has reviewed this research study. For research-related problems or questions regarding subjects' rights, you can contact Ro Windwalker, the University's Compliance Coordinator, at 479-575-2208 or email irb@uark.edu. Your decision whether or not to participate will not affect your current or future relations with the University of Arkansas. If you decide to participate, you are free to refuse to answer any of the questions that may make you uncomfortable. Individual data collected through this survey will be kept confidential and only reported in aggregate with that of other operators. You can withdraw at any time without your relations with the university being affected. If you would like to continue, please click the link below to continue on to the survey.

I know that you are extremely busy and surveys can be a burden on your time. I want to thank you for your taking the time out of your day to assist in this census study, which will be helpful as the discipline of agricultural communications grows.

Survey link: http://uark.qualtrics.com/SE/?SID=SV_dby9auawNXrLYBT

Thank you,

Morgan Large
Graduate Teaching Assistant
University of Arkansas
230 AGRI
mmlarge@uark.edu

XI. Appendix E

Reminder Email to Department Heads of Agricultural Communications Undergraduate Programs

Good morning,

You were contacted last week to participate in a survey characterizing undergraduate agricultural communications programs.

If you have already taken the survey or if the person to whom you forwarded it has taken it, I more than appreciate your time and participation.

If you have not completed the survey or the person to whom you forwarded it has not completed it, this email serves as a reminder to take the survey, which should take 40 minutes of your time, by **Friday, April 4th at 5 p.m.** (CST).

Again, this research study has been reviewed by the Institutional Review Board at the University of Arkansas. For research-related problems or questions regarding subjects' rights, you can contact Ro Windwalker, the University's Compliance Coordinator, at 479-575-2208 or email irb@uark.edu. Your decision whether or not to participate will not affect your current or future relations with the University of Arkansas. If you decide to participate, you are free to refuse to answer any of the questions that may make you uncomfortable. Individual data collected through this survey will be kept confidential and only reported in aggregate with that of other operators. You can withdraw at any time without your relations with the university being affected. If you would like to continue, please click the link below to continue on to the survey.

I know that you are extremely busy and surveys can be a burden on your time. I want to thank you for your taking the time out of your day to assist in this census study, which will be helpful as the discipline of agricultural communications grows.

Survey link: http://uark.qualtrics.com/SE/?SID=SV_dby9auawNXrLYBT

Thank you,

Morgan Large
Graduate Teaching Assistant
University of Arkansas
230 AGRI
mmlarge@uark.edu