STRENGTHENING AGRICULTURAL COMMUNICATION CURRICULUM:
PERCEPTIONS AND RECOMMENDATIONS OF INDUSTRY PROFESSIONALS

A Thesis

Presented in Partial Fulfillment of the Requirements for
the Degree Master of Science in the
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By

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ABSTRACT

Academic agricultural communication programs across the United States prepare graduates to serve the information needs of both consumers and agricultural producers. As agriculture continues to grow in scope and complexity, communicators must be prepared to keep pace with the growing information demands of audiences around the globe. This study serves as a "pulse check" for university agricultural communication programs to identify their perceived strengths and weaknesses in preparing graduates to enter the professional agricultural communication industry.

The researcher randomly selected 20 industry professionals to participate in open-ended telephone interviews that addressed various aspects of university agricultural communication programs. Participants were identified from the 2006 AgriMarketing Annual Marketing Services Guide and represented U.S. marketing communication agencies, U.S. print agencies, and U.S. farm broadcasters. Interviewees answered a series of questions in three categories: the agricultural communication industry at large, hiring and the future, and education and professional development. The conversations were recorded and transcribed. Closed-ended responses were reported using frequencies, means, and standard deviations, where appropriate. Open-ended responses were coded according to common themes when possible.
Results of the study revealed that agricultural communication professionals want to be involved in agricultural communication curriculum development. Respondents advised individuals at colleges and universities who are making decisions about curriculum to stay connected to the industry and to seek industry input. Some respondents suggested that faculty complete "internships" within industry to ensure they are in touch with the current market. According to the majority of respondents, recent agricultural communication graduates are adequately prepared to enter the industry, especially in their mastery of technology skills. The respondents placed much value on journalism, marketing, and public relations course work and skills when hiring new employees.

In order to stay competitive and current with agricultural communication efforts, academic programs need to educate their students on technology trends - including how to use electronic communication effectively and efficiently. Academic programs also need to impart knowledge of business and professional ethics. As the agricultural communication industry continues to shrink and become more competitive, several respondents voiced concern that some may be sacrificing ethics to stay in business.

The recommendations offered in this study provide a starting point for colleges and universities to consider when evaluating and developing undergraduate curriculum. In addition to conducting future research with other stakeholders, faculty and curriculum specialists must also consider the unique mission of their home institutions, as well as the larger goal of providing students with a well-rounded and balance education.
DEDICATION

This research project is dedicated to my husband, Rowdi, my family, friends and colleagues who supported me throughout my graduate studies. They were all my source of determination, patience, and laughter when I needed a break.
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CHAPTER 1

INTRODUCTION

Agriculture — "...the science, art, or practice of cultivating the soil, producing crops, and raising livestock and in varying degrees the preparation and marketing of the resulting products." — Merriam Webster's on-line dictionary (2006)

Agriculture — "...the science of raising plants and/or animals for food, clothing or other useful products." — The Biology-Online dictionary (2006)

Agriculture — "...is often misunderstood as being only farming. Agriculture is actually an intricate economic system involving agricultural producers, processors, manufacturers, and marketers." — College of Tropical Agriculture and Human Resources (2002)

While many different definitions of agriculture can be found in literature, it is difficult to settle on a single definition that captures all the dimensions of agriculture through the centuries. Literature indicates that agriculture dates back at least to Babylonian and Egyptian civilizations (Gras, 1946). Leonard (1973) wrote that agriculturists emerged out of those early civilizations when villagers and nomads started
domesticating crops and animals – in particular, wild wheat and barley and sheep and goats that roamed the hillsides. Farming existed in the Near East three to four thousand years before other regions of the world independently invented it – including North China, Mexico, and Peru (Leonard, 1973).

Phillips (1939) credits agriculture with bringing early people out of savagery and into civilization. The routinized planting, cultivating, and harvesting of food and fiber materials made it possible for larger populations to form and provided the resources for complex societies to emerge (Leonard, 1973).

“...Agriculture or at least the possibility of securing agricultural products is the basis for success of any civilized people,” writes Carrier (1923, p. 11). If world tragedy struck, and all that was left was human and agricultural products, humans would have all of the survival essentials.

Agriculture is fundamental to the continued existence of humans. By systematically cultivating plants and raising animals, humans were able to find a sense of security in food production that did not exist with hunting and gathering (Gras, 1946). Farming practices began to supplant hunting and gathering methods as the preferred way of obtaining food in the 17th century. Historians question why and how agriculture came to fruition after humans spent more than a million years hunting game for food.

Gras (1946) refers to the early economy of agriculture as “collectional.” This term comes from agriculture’s earliest stages, which consisted of humans collecting fruits, moss, and other products of the earth to sustain life. Unlike the economy developed in later centuries where money is exchanged for services or products, the collectional economy was not characteristic of such exchange.
When humans took strides toward cultivating plants and raising animals, the collectional economy started to evolve into a new economy. This new financial system retained the original characteristics of collectional economics, collecting goods and roaming the land to identify food sources. However, the new economy also included cultivating necessities *systematically* (Gras, 1946).

**Early U.S. agriculture**

America's agricultural industry can be traced to the first settlers at Jamestown, Virginia, in the early 1600s. During this period, agricultural production methods were crudely developed, and the majority of the population had to farm to meet the food and clothing needs of all (Phillips, 1939).

By 1790, the U.S. population had grown to almost four million. At the same time, farmers comprised 90 percent of the labor force. By the 1850s, the frontier had expanded to the Pacific Coast as farming began on the prairies with the California Gold Rush. In 1862, the federal government started giving land away under the Homestead Act. This legislation granted 160 acres of land to settlers who had lived on a piece of land, built a home, and made improvements to it over a five-year time frame. In the few years that followed, a cattle boom accelerated the settlement of the Great Plains (USDA Agriculture in the Classroom, 2006).

The growth and development of U.S. agriculture that occurred steadily throughout the last two centuries was fueled by advances in farm technologies. Through the 1700s, farming practices were performed by hand – including the cultivating, planting, and harvesting of crops. Farmers used oxen and horses as their source of power. The
invention of the cotton gin and the patent for the first cast-iron plow came at the close of the 18\textsuperscript{th} century and started a flurry of industry-transforming inventions in the 19\textsuperscript{th} century – including the grain elevator, practical mowing machine, and hybridized seed corn. Despite the boom in farming technologies, it was not until the late 1800s that the most common image of today’s American farm was invented – the tractor (USDA Agriculture in the Classroom, 2006).

Booms and busts in American agriculture played integral roles in national and local economies over time. Farmers experienced strong economic growth in the early 1900s, which is referred to as the Golden Age of American Agriculture (Cochrane, 1993). “The terms of trade were strongly in the favor of farmers. The country was settled,” writes Cochrane (p. 100). Farmers in the early part of the 20\textsuperscript{th} century also experienced tremendous technological and educational change. During this time, farmers set the framework for a new commercial agriculture, with a science and technology base and a reliance on federal government policy and efficient business practices (Hurt, 2002).

Agriculture carried the country through many historical events by providing the means for human sustenance. This was especially important during wartime and other economic uncertainties as the first half of the 20\textsuperscript{th} century was affected by two major wars and a severe depression. In the 25 years following 1930, farmers endured the best and worst of times -- the crippling economic depression of the 1930s gave way to unprecedented returns in the 1950s. During the Great Depression, farm prices plummeted. In some markets, the price of cotton and hogs fell to 3 cents per pound, wheat 12 cents per bushel and cattle $4.14 per hundredweight. This collapse in farm prices caused the federal government to intercede, forever changing the relationship
between government and agriculture (Hurt, 2002). The Great Depression also had a significant negative impact on agricultural investments (Cochrane, 1993). The net investment in agricultural equipment averaged a negative $336 million each year between 1930 and 1935 (Cochrane).

However, in the years during World War II, farmers endured high prices and a labor shortage. "Between 1940 and 1946 the prices received by farmers in the United States increased by 138 percent," write Cochrane (1993, p. 124). They made up for the lack of manpower by purchasing tractors. Farmers then realized how mechanized power made it possible for them to produce and earn more. In 1941, the government promised farmers 85 percent of parity prices. "Indeed, World War II and favorable agricultural policy gave many farmers the first prosperity they had ever known," (Hurt, 2002, p. 321).

The G.I. bill made it possible for many citizens to attend college, which increased enrollment in agricultural courses during the late 1940s and early 50s (USDA Agriculture in the Classroom, 2006). The Korean War and the Recession that followed in the late 1950s led to an agricultural surplus. Farmers at this point in time comprised 12 percent of the U.S. population. Agricultural technologies continued to develop in the 1950s as farmers increased their use of tractors and boosted crop yield with anhydrous ammonia fertilizer. As technology advanced and tractors became widely used in the 1940s and 50s, the amount of land acreage used to produce crops dropped significantly (USDA Agriculture in the Classroom, 2006). The number of actual U.S. farms also plummeted—shrinking from 6.8 million in 1935 to 3.0 million in 1970 (Cochrane, 1993).

The 1960s was also a time of organization for various federal legislative acts including the Humane Slaughter Act. The late 1960s saw a tremendous amount of
inventions making their way into rural communities. By the 1970s, inflation rates were on the rise as economic expansion slowed down. There continued to be great advances in farm machinery. The farm financial crisis of the 1980s greatly impacted farmers who had a great deal of debt, which led to depopulation in many rural areas. More farmers turned toward no-till farming practices, and farm machinery continued to be developed and improved. After another recession and subsequent business expansion in the 1990s, developing technologies continued to affect the agricultural industry. Farmers started to use satellites to plan their farming practices, and biotechnology advanced the production of numerous agricultural commodities (USDA Agriculture in the Classroom, 2006).

As this brief literature review illustrates, agriculture was a key component that helped establish the early U.S. economy and society. From the time settlers first arrived at Jamestown to the lowest point of the Great Depression, agriculture has sustained the population. The role it plays in the 21st century is still critical as it is responsible for sustaining life for growing populations around the globe.

**Contribution to culture**

As alluded to in this chapter's opening, agriculture’s many dimensions defy easy definition. While agricultural activities are widely recognized for their value as sources of food and fiber, it is also important to note that agriculture also defines a unique culture and way of living. Although some cultural characteristics of agriculture may change across country borders, there are some common traits.

Literature provides a number of positive, even romanticized, accounts of farming and farm people. In *The Good Life* (Knoop, Polking & the Farm Quarterly Staff, 1961)
collection of stories, the author illustrates life on American farms. The book shares thoughts about farmers’ lifestyles, their families and their values. In one particular story titled “The good life of the Gilfilens,” readers meet a farm family from St. Martin, Ohio.

The Gilfilens are small farmers. They are not small people. Measured in dollars, they are insignificant, but by the yardstick of happiness, they are to be envied. They work together: Sundays they kneel together. Theirs is a common goal, a sharing of responsibility, and quiet faith in themselves. When Ed steps out of his back door, he’s in business. More likely than not, Jane and five little Gilfilens are right behind him.

(Knopf et al., 1961, p. 26)

Individuals from kings to philosophers have written about the agricultural lifestyle in a fashion that has generated literary glamour about it (Gras, 1946).

Beyond our bustling cities, America’s farmlands are ostensibly a Norman Rockwell picture of calm and stability. Red barns, majestic silos, rustic farmhouses, and pastures of grazing livestock are reassuring images that recall a seemingly simpler age.

(Ballenger & Blaylock, 2003, p. 28)

The agricultural lifestyle has traditionally been described as one of independence that allows farmers to be their own supervisors, make their own business decisions, and be entrepreneurs (Gras, 1946). Agriculture’s physical demands are evidence of the importance and dignity of intense labor to human existence (Schafer, 1936) and there is much gratification in a plentiful harvest season (Gras).

Some view farmers as humble. It is more important to agriculturists to enjoy their possessions than to win badges of honor in war (Carrier, 1923). Honest, trustworthy, understanding and tranquil are among the adjectives Rawson (1939) used to characterize farmers. He later noted that old-school farmers are members of society whom the “mob”
[mass media] has not touched. "The old-school farmer shows us why farming America was happier and more secure than the America of today," (Rawson, p. 21).

However, not all groups throughout history have recognized the importance of agriculture and farming. Carrier (1923) wrote about the nation's tendency to be unappreciative toward farmers. Throughout history, the "ruling class" viewed farmers as suppliers of their food but they are accorded no value to the nation beyond that. He continued to write that the need for agricultural products has not gone unnoticed, but the well-being of those responsible for agricultural practices has (Carrier).

Other accounts of farmers have been decidedly less positive. Words such as "villain, heathen, pagan, and peasant" have all been used to describe agriculturists in the past. Carrier wrote that in the early years, agriculture had a taming effect on farmers. They grew out of the warlike spirit (which became associated with savage races) after becoming involved in production agriculture (Carrier, 1923).

Farmers were also viewed as lone souls – simply following the plow and sleeping on bales of straw. "Through the ravages of war or the unkindness of weather, is really no happy figure [the farmer], for his hands are hard, his back bent, his mind furrowed by each day's toil" (Gras, 1946, p. 22). There is constant struggle against nature's wrath, including droughts, insect plagues, and other natural disasters and this bears down on farmers, making the lifestyle unappealing (Gras).

More contemporary views of agriculture tend to recognize the importance of agriculture while noting other possible problems. An example can be found in a recent article from AgriMarketing magazine in which legislators said they viewed rural America as an "incubator of traditional values." The majority of legislators also reported there was
something “unique” and “particular” about the rural American audience that merits awareness, preservation and support, but believe the absence of a strong national voice is a barrier to drafting rural policy,” AgriMarketing writes (“Farm Journal Forum,” 2002, p. 39).

In the article, members of Congress were said to express disappointment in the diminishing number of family farms. Also mentioned were persistent poverty in rural communities and the constant struggle to bring economic opportunities to such communities (“Farm Journal Forum,” 2002).

Agricultural communicators represent the culture of the agricultural industry in their work. They portray an entire way of life, one that is unfamiliar to most populations. “Unaware of the issues, or of their own stake in what is happening, most newspaper readers, radio listeners and television viewers know more about the private lives of Hollywood stars . . . than they do about the quality and stability of their own food supply,” writes Pawlick (1998, p. 11-12).

**Modern agriculture**

In 2006, agriculture does not solely include the act most people commonly refer to as farming. It encompasses research and development using a range of scientific and technological methods and tools.

Agriculture is also responsible for providing resources to other commercial commodities. Industries such as spinning and weaving rely on wool, cotton, flax, or silk producers for their raw materials. Tanneries depend on farms for a source of animal hides to make leather goods. Fur coat manufacturers obtain the fur for their products from
farms, not from wild game. Sugar and flour mills would close if it were not for the sugar cane, wheat and other farm products (Phillips, 1939). Restaurants and grocery stores rely heavily on fish farms to produce practically all of the catfish and trout they serve and sell (Gaidos, 2001).

The current agricultural industry in the United States feeds and clothes populations across the globe (Edmondson, 2004). In 2004, the agricultural products market was valued at $144.5 billion (Agricultural Products in the United States, 2005). Although the United States is a small regional agricultural market compared to Europe and Asia-Pacific, it contributes 17.5 percent of the global market value of agricultural products (Agricultural Products in the United States).

According to the National Farm Bureau’s Web-site, farmers in the United States are the most productive in the world. On average, each farmer in the United States produces food and fiber for 144 people (National Farm Bureau Federation, 2006). The number of citizens the average farmer feeds is constantly on the rise. In 1940, the average was only 19. It takes the average American 40 days to earn enough disposable income to cover the cost of food and fiber for a year, compared with 100 days to earn enough income to pay federal, state and local taxes (National Farm Bureau Federation).

As of December 2005, North America led the world in agricultural product exports, which totaled more than $19.5 billion (U.S. Bureau of the Census Trade Data, 2005). In addition to leading the world in exports, North America leads the agricultural import industry. As of December 2005, North America was responsible for importing more than $19.9 billion in agricultural products.
The nation’s food and fiber system encompasses a variety of industries from farm suppliers to fast food chains (Edmondson, 2004). As an industry in the United States, agriculture contributed $1.24 trillion to the nation’s gross domestic product\(^1\) and employed 23.7 million workers in 2001 (Edmondson).

The agricultural industry is also important to the economy because of the number of people it employs. Although farmers constitute 2 percent of the U.S. population, they number nearly six million. This figure does not include the number employed in various agricultural industries (Offutt & Gundersen, 2005).

Meanwhile, modern agricultural research is increasingly in the news due to its application in critical “non-farm” industries, such as health and energy. For example, agriculturists and medical researchers at The Ohio State University have collaborated to study the effects of berry consumption on different types of cancer. Researchers from various disciplines, including pharmacy, agriculture, dentistry, and public health are interested in “crop-to-clinic” research as it has potential to provide answers to some medical mysteries (Espinoza, 2005).

Agriculturists are also involved in producing a variety of oats that is beta-glucan rich. Beta-glucan, a soluble fiber, has become a well-known term around health-conscious consumers because of its ability to lower the level of bad cholesterol (in conjunction with a healthy diet) and thus reduce the risk for coronary heart disease. Researchers at the Agricultural Research Service and North Dakota State University have developed HiFi, a spring oat cultivator that was developed specifically for its beta-glucan content. The U.S. Food and Drug Administration has sparked consumer interest in beta-glucan with its

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\(^1\) Gross domestic product (GDP) is a measurement of the Nation’s wealth (Edmondson, 2004)
health-label claims, which in turn has prompted commercial interest in HiFi (Suszkiw, 2006).

Identifying and assessing alternative energy sources are other growing frontiers of agricultural research. Countries around the globe have started identifying renewable resources that can be used in energy production. These efforts have fueled industry leaders such as Cargill and Archer Daniels Midland (ADM) to increase their investment and research efforts in ethanol production (Big ethanol players, 2005).

Numerous agricultural research projects are currently investigating the use of citrus peel, switchgrass, and miscanthus in ethanol production. Florida researchers started to explore converting citrus peel waste into ethanol in 1992, but they discontinued their efforts because the production cost outweighed the price of gas at the time. However, since the recent dramatic increase in gas prices, this research has regained attention (Flores, 2006).

In Iowa, researchers are interested in alternative energy resources, such as ethanol, and are leading a biofuel research project that studies how power plants can burn switchgrass (instead of coal) to generate electricity (Johnston, 2006). Another focus of this project is improving emissions from energy-producing facilities (Johnston).

Researchers are also investigating miscanthus as a biomass energy source (Larson, 2006). A commercial crop in Europe, miscanthus is currently grown in the United States and is being compared to switchgrass in side-by-side comparison studies. Results from a 2004 miscanthus trial led researchers to conclude that the United States could achieve its goal of replacing 30 percent of foreign oil with ethanol by using
switchgrass. However, miscanthus would allow the country to reach this goal more quickly and with less land resources (Larson).

While health and energy represent two of the more widely publicized areas in which modern agricultural research is involved, many other examples can be cited. A number of sources provide current updates on agricultural research, such as the *Agricultural Research Magazine* and the *Journal of the Science of Food and Agriculture*.

**Role of agricultural communication**

Combining their knowledge of agriculture, skills in communication, and interest in working with people, agricultural communicators have served the public since the early 1800s (Buck & Paulson, 1995). Agricultural publications were first printed in 1790. The main purpose of these pieces was to spread information about farming (Boone, Meisenbach & Tucker, 2000). As research in academic institutions expanded, so did the need for agricultural communicators. “What happened is that there was broad agreement that agricultural scientists were wasting too much of their valuable time answering individual letters and responding to personal inquiries and attending meetings,” writes Kearl (1983, p. 3). The demand for academic agricultural communicators came from these laboratory scientists who needed educated, knowledgeable individuals to respond to the public’s questions and information requests about research and practices (Kearl, 1983).

Because of its scope and complexity, the agricultural industry of the 21st century requires a comprehensive communications network to function properly. Agriculturists rely on access to timely and accurate information to remain economically competitive in
today’s marketplace. Non-farm rural and urban consumers are also key audiences for agricultural information. Because less than 2 percent of the nation’s population is directly involved in production agriculture, well-trained communicators play an integral role in explaining the importance of agriculture in their daily lives (Wargo, 1993).

The agricultural communication industry dates back some 200 years. While communication practices and technologies have changed dramatically during the period, the basic mission of agricultural communication has persisted. Agricultural communicators fulfill a variety of roles, but the primary task involves providing timely and relevant information to farmers and agribusinesses to enable them to make informed decisions about production and marketing of agricultural commodities and products, as well as the marketing of various agricultural services. In addition, agricultural communicators provide specialized and science-based information to mainstream media and target information directly to consumers to help increase their knowledge and awareness of food, agricultural, and environmental issues.

Included in the agricultural communication field are a number of specialized industries that collectively employ thousands of professional communicators with widely varied expertise. For instance, the field includes print media and publishing companies, radio and television stations, marketing communication firms, and advertising and public relations agencies.

It is difficult to access current data on the actual scope of the agricultural communications field. The *Gale Directory of Publications and Broadcast Media* (Sumner, 2004) lists 530 U.S. agricultural publications, which includes agricultural magazines, journals, and radio stations. This publication does not provide statistics for
each media outlet. Publications such as the *AgriMarketing Annual Marketing Services Guide* (2006) lists 166 agricultural print media companies in the United States.

Television and radio broadcasting comprise a relatively small part of the agricultural communication industry. Again, however, it is difficult to locate precise numbers on the scope of farm radio and television. The 2006 *AgriMarketing Annual Marketing Services Guide* lists 73 U.S. broadcast stations. Farm broadcast focuses on providing up-to-date market reports to farmers as well as providing radio programming that supports the agricultural industry and provides agriculturists the information they need to make decisions about their practices (weather reports, insect outbreaks, advancements in technology, etc). The National Farm Broadcast Association (NAFB) has 481 members, of which 136 are farm broadcasters (J. Povenmire, personal communication, July 12, 2006). NAFB estimates that 90 percent of all farm broadcasters are a member of the association (J. Povenmire).

Marketing communication and public relations agencies serve a number of different roles in the agricultural industry. Marketing agencies often provide companies with research regarding audience demographics and psychodemographics. Marketing communicators also provide public relations services, and generate advertising and branding strategies for agricultural companies. Agencies also analyze agriculture from a marketing standpoint to predict consumer action and reaction. The 2006 *AgriMarketing Annual Marketing Services Guide* lists 91 U.S. marketing communication agencies. However, there are many more agencies that handle agricultural and food-related accounts. Precise data were not available.
Public relations firms also serve the agricultural industry. They represent the agricultural industry to the general public. The Agricultural Relations Council (ARC), a professional organization, had 72 members (personal communication with J. Omernik July 19, 2006). No precise data were available that summarizes all agricultural public relations firms.

Agricultural communicators were often members of professional organizations that focus directly on the field. There were seven prominent organizations devoted exclusively to agricultural communication: (a) Association for Communication Excellence; (b) Agricultural Relations Council; (c) American Agricultural Editors' Association; (d) Cooperative Communicators Association; (e) Livestock Publications Council; (f) National Association of Fann Broadcasters; and (g) National Association of Agricultural Journalists. Appendix A provides a description of each of these organizations, as well as Web-site addresses.

Although specific training and expertise varies widely among professional agricultural communicators, most generally hold bachelor's or master's degrees. In addition, practical experience is valued highly in most agricultural communication professions.

While there is a strong, sustained need for colleges and universities to produce qualified entry-level communicators with a specialization in agriculture, research suggests a lack of consistency in the educational training and preparation of those entering the agricultural communication profession. Buck and Paulson (1995) found that agricultural communication practitioners responding to their study held college degrees in
nine different areas. The researchers concluded that the range of degrees were illustrative of inconsistencies in job preparation in the agricultural communication industry.

"Recruiting qualified professionals with a mastery of both agricultural and communications subject matter has challenged agricultural media and business employers for years," stated Boone et al. (2000, p. 104). Technological advances, demographic changes and increased societal expectations have transformed both fields and added to the challenges of preparing qualified agricultural communicators.

An example of technological change is the trend toward media convergence, which refers to the "coming together of telecommunications and computer technology" (Lowrey, Daniels & Becker, 2005, p. 33). Convergence refers to a blending of technological capabilities used to deliver content through different media by way of a computer driven distribution system (Kraeplin & Criado, 2005 p. 48). A study of students and instructors conducted by Castaneda, Murphy & Hether (2005) found that both groups reported value in teaching media convergence.

A related issue in the communications literature concerns industry consolidation, or the concentration of ownership of news and communication companies into fewer but larger entities. More than three-fourths (79 percent) of the participants in the 2004 Agricultural Communications Summit expressed the belief that the agricultural industry will continue to be characterized by media consolidation and mergers. Geimann supports this claim in his chapter, "Task Force on the Professions in the New Millennium," in Journalism and Mass Communication Education: 2001 and beyond (Geimann, 2001). "By one estimate in early 2001, 50 media companies were engaged in some partnership
or affiliation that could be considered convergence or blurring the lines between print and broadcast,” (Geimann, p. 5).

A final industry-shaping change that necessitated this study was shifting demographic characteristics and changing cultures of various audiences. Ballenger and Blaylock stated that three demographic trends influenced the future of food markets in the United States: consumers are now more mature, more diverse and greater in number (2003). “By 2020, the U.S. population will likely grow another 18-28 percent, implying another 50-80 million people to feed just here [in the United States],” (Ballenger & Blaylock, p. 32). This increase presents a challenge to the agricultural industry in serving the needs of a growing American population. The culture and demographics of farming are also undergoing change. According to Mark Perrin of the McCormick Company, the demands of young agricultural producers are different from those of prior generations. “Younger producers are different and demand a different marketing approach,” he stated (“Numerous Issues,” 2005, p. 37).

This study had the goal of providing information necessary to update and improve undergraduate agricultural communication curricula. The study relied on in-depth interviews with agricultural communication industry practitioners to identify current and future issues that should be considered in fine-tuning agricultural and communications course work in this specialized area of study.

**Importance of the study**

This study, aimed at providing information to help improve undergraduate agricultural communication curriculum, was particularly needed at the time it was
completed. Proceedings from one of the field's primary professional associations revealed that new agricultural communication programs were being established at several universities while many existing programs were growing (Academic Programs SIG, 2006; Weckman, Witham & Telg, 2000). Therefore, it was especially important to examine the curriculum and to identify and make available needed resources and information to assist faculty in developing agricultural communication curriculum at those institutions. Such information was particularly needed as technological and demographic changes were transforming the agricultural industry.

This study relied on expert and experienced agricultural communication practitioners to identify and discuss challenges and trends in the industry and to speculate about the field's future. Practitioners were also asked to rank components of the curriculum that were beyond the "standard" college education curriculum (such as a study abroad experience, extra-curricular involvement, work experience, etc.). As discussed in greater detail in Chapter 3, the qualitative methodology employed allowed the researcher to probe and follow up on key discussion elements. The fact that the data collection methodology resembles a "conversation" is not coincidental, as the literature indicated that open conversation between industry and academia is a key to successful curriculum evaluation and development.
This study had the following objectives:

**Objectives**

1. Examine how professional agricultural communicators describe their role in the industry.
2. Examine professional agricultural communicators’ perceptions of the scope and importance of agricultural communication.
3. Identify the major challenges and trends in the industry as perceived by industry professionals.
4. Identify professionals’ perceptions of essential skills, experiences and expertise required of new graduates entering the field.
5. Assess professionals’ perceptions of the level of preparation that new graduates bring to the workplace.
6. Identify the skills and forms of expertise that professionals believe will be needed by future graduates.
7. Gauge professionals’ perceived needs for workshops and continuing education opportunities.
8. Assess professionals’ perceptions of agricultural communication professional organizations in meeting industry challenges.

Specialized terms used in this study were operationally defined in the following manner:

**Definitions**

*agriculture*: raising plants and animals for the purpose of supplying the world with food and fiber products.
communication: the process by which information is exchanged between individuals or groups through a common system of symbols, signs, or behavior\(^1\). In general, this study uses the term communication in reference to mass communication, which is the act of using technology to transmit messages to a large audience at one time.

**agricultural communication professionals:** includes individuals who spend a majority of their professional time engaged in communication-related activities related to food or agriculture. Employers for such individuals may include government or non-profit agencies, private businesses or corporations, or various public or private organizations or associations. Position titles vary widely and might include editor, writer, public relations representative, account executive, agricultural news director, or graphic designer.

**agricultural communication academicians:** includes individuals who teach and/or are responsible for educating students in agricultural communication—including undergraduate and graduate students. They make decisions about curriculum development and course content and delivery.

**agricultural communication industry:** The range of public- and private-sector agencies, businesses and associations that are significantly involved with the generation or transmission of news, advertising or other form of information related to food or agriculture. Agricultural journalism, which refers to reporting and editing for journals, newspapers and broadcast media\(^2\) is included here.

**curriculum:** all of the learning, routines, and interactions that occur among all participants as a function of schooling, whether planned or not, which inform and shape responses to the environment within and outside of school.\(^3\) Curriculum in this research study includes, but is not limited to credit generating course work. It extends to include study abroad opportunities, extra-curricular involvement, and internships (among other things) that are made available in an undergraduate student.

Note: In keeping with the common usage convention found in the education literature, the singular form “curriculum” is used for both singular and plural references in this document.

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\(^1\) From the Merriam-Webster On-line Dictionary

\(^2\) From Boone, Meisenbach and Tucker (2000) p. 102

\(^3\) From Hollins (1996), p. 1
Limitations

Owing to the qualitative methodology used in this study (see Chapter 3), results from this research are generalized only to study respondents and not to the population of agricultural communication professionals.

In addition, this research is focused primarily on undergraduate agricultural communication curriculum. While references may periodically be made to graduate programs, the objectives of this study do not formally extend to this topic.¹

¹ A number of programs offer degrees or specializations at master's and doctoral levels. Although this study makes recommendations for undergraduate studies only, it does make reference to some graduate agricultural communication programs. More detailed information about graduate programs can be found in the work conducted by Doerfert, Akers, Davis, Compton, Irani & Rutherford (2003); Boone et al. (1993); and Simon et al. (2004).
CHAPTER 2

LITERATURE REVIEW

Properly developed curriculum is critical to academic units across the globe. "A school without a quality curriculum is like a car without an engine – neither goes anywhere," writes Meyers (2005, p. 27). In educational institutions, curriculum encompasses more than an outline of subject matter and course objectives. It extends to include student learning, teacher strategies and school structure. Curriculum is the driving force behind teaching and learning, thus its evaluation is as critical as an engine tune-up (Meyers).

When making recommendations for agricultural communication curriculum development, it is first important to research the ways educators evaluate and develop curriculum, identify the various stakeholders in the processes and discuss past curriculum studies.

A curriculum should be a dynamic instrument that reflects the educational objectives that are to be attained and the educational experiences that can be provided to achieve them. Since these objectives will change over time, so will people's judgments as to what experiences will be likely to achieve them. There is therefore a need for continual curriculum reform as society itself develops.

(Taylor, 1999, n.p.)
Revising curriculum on a continuous basis is necessary due to society’s constant development. The judgment stakeholders have about what educational experiences will be necessary to fulfill the said objectives is also ever-changing (Taylor, 1999).

**Curriculum evaluation**

Educators frequently use a set of curriculum-based assessment (CBA) procedures to evaluate student academic achievement and performance. In this process, students are observed and their performance is recorded. The resulting data set serves as a guide to instructional decision-making (Hintze, Christ, & Methe, 2006). Professional literature outlines four types of CBA as discussed in Hintze et al. (a) instructional design; (b) criterion-referenced; (c) curriculum-based evaluation; and (d) curriculum-based measurement.

The method educators use to conduct CBA is hypothesis-driven and depends on whether the goal is to measure specific sub-skill mastery or general outcomes. “A CBA is developed by conceptualizing the major curricular or learning components of an academic construct and selecting items or tasks across the broad spectrum that the domain is intended to represent,” writes Hintze et al. (2006, p. 45). This particular assessment evaluates student skill development across the entire curriculum spectrum (Hintze et al.).

Bers (2004) writes about Austin Community College in Texas where graduating seniors in the Visual Communication Design Program compile a portfolio that highlights pieces of their best design work. The portfolio components must illustrate that students have mastered skills through their exposure to curriculum throughout their studies in the
program – not just from one class. Professionals from various local communication companies evaluate the portfolios based on eight areas that are critical to succeed as an employee. The professionals assign a grade to the individual portfolios. Those scoring at least 70 percent are considered “competent” for entry-level positions (Bers).

Another form of CBA concentrates on absolute levels of proficiency. This type of assessment focuses on measuring student skill level in one particular section of the curriculum (Hintze et al., 2006). For example, an instructor may be interested in evaluating the “editing” portion of his or her writing course. In this situation, the instructor would not evaluate the entire curriculum, but rather the editing-specific curriculum.

If educators combine CBA procedures from the specific sub-skill mastery and general outcome sectors, “practitioners can develop a comprehensive approach to academic assessment that addresses both summative and formative assessment needs,” (Hintze et al., 2006, p. 55).

Curriculum in high schools is often evaluated by a committee that compares what is currently being taught to a set of standards or objectives outlined by a state department of education or a professional organization (Meyers, 2005). These standards do not necessarily reflect poor evaluation, but Meyers suggests a more comprehensive approach to evaluation. The final outcomes of her proposed strategy were that (a) curriculum meets state standards and benchmarks; (b) curriculum is relevant and sufficient, i.e., valid; (c) curriculum is effectively implemented; and (d) students are achieving key objectives at an acceptable level (Meyers).
Curriculum may also be evaluated on its delivery method. Active and passive instruction impact student curriculum retention differently (Wingfield & Black, 2005). Active course design can be achieved by increasing student involvement in the classroom. Conversely, passive course design is instructor-centered. As the workforce demands employees who have the skills to analyze and synthesize information from a multitude of sources, make choices, and execute a plan of action, educators are pressured to instill students with these skills. Students found that curriculum that was characteristic of active course delivery was more useful to their future careers than passive course delivery (Wingfield & Black). Meyers (2005) also wrote about implementation of curriculum in high schools. She argued that high-quality curriculum has no impact if educators do not implement it properly.

Curriculum implementation affects student retention. Howell (2002) wrote that curriculum should not be evaluated on what is taught, but rather what students learn. She argued that presenting all curriculum that was planned for a course doesn’t necessarily mean that students will discover it (Howell). Curriculum evaluation should include ensuring that students are active discoverers and constructors of knowledge. “Students are more likely to learn when they are actively engaged in learning for deeper understanding,” Howell writes (p. 116).

Curriculum should also be evaluated on whether it generates student autonomy. Because autonomy is the highest level of human development, designing course work that encourages students to take responsibility for their learning empowers them. Student autonomy can be achieved by teaching “knowledge-in-action” as opposed to “knowledge-out-of-context,” (Howell, 2002). This may include providing students with
real-world activities and problems so they can transfer classroom learning experiences into the working world when they enter it (Howell).

Bers (2004) also wrote about several ways academic units could assess curriculum at the program level. While this work was focused on community college curriculum, it has application to other educational settings. Programmatic assessment measures student ability to integrate information learned in individual courses into a rational whole. Bers suggests several avenues for assessing the curriculum within academic units: (a) capstone courses, a required course at the end of a program that requires students to integrate material learned from earlier classes; (b) vendor or industry certification examination, an external corroboration that students have learned the necessary knowledge for job performance; (c) institutional or departmental testing, a standardized test that faculty develop to measure student learning at the end of a program; (d) satisfaction surveys, a self-evaluation of students and alumni as to how a program has prepared them for the workplace; (e) portfolio assessment, a compilation of student projects that faculty evaluate; (f) performance manuals, an outline of behaviors students should effectively perform that faculty measure in class; (g) narratives, a paper students write to "recount" their experiences in a program; and (h) culminating projects, projects that require students to apply their learning to a project (could be part of a capstone course), such as a marketing plan.

Though most administrators and faculty are aware of the importance of curriculum evaluation and development at the program level, few institutions of higher education have built continuous evaluation approaches that concentrate on learning outcomes at the multi-course or program level (Bers, 2004).
Curriculum development

Curriculum evaluation usually results in one of two things – the review may suggest either that current curriculum needs improvement to shore up weaknesses or that a whole new curriculum is needed. Educators should build curriculum dynamically so that it mirrors the educational objectives as well as the learning experiences to which students will be exposed to help them achieve the objectives. There are a couple of ways to build curriculum. Taylor writes about two methods – participatory curriculum development and the hierarchical approach (1999).

Identifying all stakeholders that contribute to learning is one goal of participatory curriculum development (PCD). It is important that those responsible for developing curriculum generate dialogue and interact with all stakeholder groups to understand what their various interests are in education. PCD is not exclusive because it allows stakeholder groups to be added at any stage in curriculum development. This feature is important because some likely will be accidentally omitted, some will be discovered as development moves forward and some new stakeholder groups may arise as society changes (Taylor, 1999).

Meanwhile, many academic institutions take the hierarchical approach to curriculum development (Taylor, 1999). Hierarchical curriculum development is content-oriented. Policy-makers and specialists predetermine outcomes on which curriculum developers base content. In contrast to PCD, the hierarchical approach guarantees that a specific stakeholder group possesses control over curriculum-based decisions. This ultimately limits low-rung stakeholder input and can lead to stakeholders losing interest or motivation (Taylor).
Curriculum can also be developed naturalistically (Walker, 1971 as cited in Rosales-Dordelly & Short, 1985). This model makes curriculum developers identify the beliefs, assumptions, values, and conceptions that drive decision-making (what is the stimulus for the decisions people make?). They use this information set to identify when and how individuals reach the decisions they do (Rosales-Dordelly & Short). Curriculum can benefit from this naturalistic approach because it is based on human nature; it is natural, not forced.

The curriculum development models introduced here are illustrative of the many different types of models found in the literature. In choosing an appropriate model to guide curriculum development, educators ought to consider their educational objectives. They should select a model that allows dynamic development to help them fulfill these objectives (Taylor, 1999).

**Curriculum evaluation and development challenges**

Evaluating and developing curriculum is challenging. In addition to deciding what method of curriculum assessment best fits a researcher’s objectives, there are several other challenges to address. One major obstacle in curriculum evaluation is achieving faculty concurrence on what major program outcomes should be evaluated and, further, what ability or level of learning students need to achieve to have reached sufficient learning. Although a group of faculty may concur in theory, individuals may still find it challenging to agree on individual assessment approaches or the particulars of implementation (Bers, 2004).
Another challenging aspect of curriculum development is the difficulty of identifying an appropriate combination of state standards and community-based curriculum needs (Meyers, 2005). State standards do not apply to many university curriculum, but educators do consider the standards when designing curriculum (e.g. teacher/nursing licensure). Educational institutions need to be cognizant that state agencies and many accrediting organizations have established benchmarks to guide curriculum development, and at the same time need to be aware of the educational needs of the learning community.

The strong emphasis institutions of higher education place on research has made professors (especially at land-grant universities) invest more time in building knowledge than on teaching and advising students (Kelsey, Mariger & Pense, 2002). The emphasis universities place on having highly published faculty affects the education students enrolled in an academic program receive, because faculty members demand a small number of advisees, limited teaching hours, and generous research and travel allowances so they have time to devote to research (Kelesy et al.)

Faculty dynamics may present still another challenge to curriculum evaluation. Some experienced teachers may have flexibility in their curriculum design and may not respond well to different standards when customary curriculum is affected (Meyers, 2005). Faculty may also present a challenge to evaluation if they do not have broad knowledge of course content (“Capstone Courses,” 2006). Courses in a given curriculum often are not cohesive. “Helping students integrate learning across courses so that they can see a field’s coherence only happens if the teacher has broad content knowledge” (“Capstone Courses,” 2006, p. 8).
Bers (2004) also writes that faculty may present a challenge to assessing and building curriculum. "Eliciting faculty support when external incentives – especially a forthcoming accreditation visit – are so strong is not always easy, but getting support when the motivation has to come from within the institution is even more difficult," she wrote (2004, p. 49). Some faculty may view evaluation as threatening, or as taking away energy from teaching to collect information that does not end up feeding the decision-making process (Bers). Despite these negative perceptions, there is a growing amount of pressure for faculty to evaluate learning outcomes as well as to take responsibility for student learning. "Many faculty continue to question the validity of assessment and their responsibilities to assess anything other than what they do within their individual classes," wrote Bers (p. 49).

Another obstacle to curriculum evaluation and development can arise from administrators. Administrators face time dilemmas when evaluating curriculum comprehensively as opposed to simply comparing it to the state’s standards (Meyers, 2005). Additional challenges can surface when educational leaders who evaluate curriculum are so removed from the actual curriculum that they are not familiar with it or they are unaware of current curriculum trends (Meyers).

In addition to stakeholders who present various obstacles to curriculum evaluation and development, there are four tiers of the actual development process that pose a challenge. Howell (2002) outlines the tiers as follows: (a) rhetorical curriculum – composed of the ideas of policymakers; (b) formal curriculum – written policies that have been put into place; (c) curriculum in-use – what teachers are using in a classroom; and (d) received curriculum – what students learn. Because curriculum decisions are made in
the level farthest removed from the classroom, a curriculum may lose its original
objective and effectiveness by the time it trickles down (Howell).

Stakeholders

Educational stakeholders are described as individuals or groups who think that
colleges are accountable to them. "Stakeholders provide both the context for and
infrastructure of an organization and, thus, are essential to its continued existence," wrote
Burrows (1999, n.p.). Stakeholder groups may include but are not limited to students,
faculty, and industry professionals.

Students are stakeholders in education. As experiential and learner-centered
curriculum become more popular, students should take on the responsibility for their
learning (Taylor, 1999). As noted previously, Howell (2002) supported the idea that
students are indeed stakeholders and should be included in the curriculum development
process.

Meyers (2005) identified additional stakeholders in her discussion of high school
curriculum. She included textbook publishers and those responsible for generating
standardized tests such as the ACT\textsuperscript{1} and Scholastic Aptitude Test (SAT). Her discussion
also included professional associations and accrediting organizations. She reminds
readers that input from outside stakeholders can be positive. "The impact of outside
influences is not inherently negative; the various organizations can act as valuable
resources for those responsible for curriculum evaluation and development" (Meyers, p.
29).

\textsuperscript{1} ACT was originally an acronym for American College Testing. In 1996, it became simply ACT.
Although gaining curriculum evaluation input from stakeholders outside of academic institutions can be positive, the final decisions regarding curriculum should be made by those who know students best. "Recommendations for curriculum modifications resulting from research of outside sources should be examined and appraised in light of what is best for students," Meyers writes (2005, p. 29).

Instead of placing stakeholders into groups, Burrows (1999) suggested creating stakeholder categories. It has been traditional for colleges and universities to identify faculty, administrators, trustees, donors, accrediting agencies and students as stakeholder groups, but she notes that stakeholder roles can change from situation to situation. One of the stakeholder categories proposed is Clientele. This category extends beyond students to include parents/guardians, an institution’s service partners, employers of graduates (both current and future) and tuition assistance providers (Burrows). However, students can also be a part of other categories such as governing entities (at institutions that include student representatives in the decision-making processes) and employees (student workers or non-traditional students). See Appendix C for a more complete list of stakeholder categories.

Burrows (1999) also encouraged curriculum development researchers to further classify stakeholder categories into four groups: (a) external and internal stakeholders; (b) active and passive stakeholders; (c) potential for cooperation and threat; and (d) type of stake (ownership, economic dependence, and social) and type of influence (formal, economic, or political). By looking at stakeholder categories through these different lenses, researchers can better understand and prioritize stakeholder demands (Burrows). External stakeholders are often a challenge to identify. Burrows describes external
stakeholders as students a collegiate admissions coordinator is trying to recruit (e.g. seniors in high school), this group is considered external stakeholders. However, once students enroll in an institution, researchers should consider them internal stakeholders.

Stakeholders who can be identified as active are individuals or groups with whom an institution exchanges business or "with those whose laws and regulations an institution must be in compliance," (Burrows, 1999, n.p.). Active stakeholders are more evident and get more attention from the institution than do passive stakeholders. Passive stakeholders, on the contrary, are individuals or groups the college or university does not currently conduct business with (those who do not have current legal, financial, moral or transactional interests in the institution). However, they are important to consider because they have been affected by institution action in the past or they have the potential be affected by an institution's future action (Burrows). An example of a passive stakeholder is an industry organization that hires a university's graduates or that uses its research.

When considering PCD, the potential for cooperation and threat from individual stakeholder categories should also be addressed. Burrows (1999) suggests placing stakeholder categories on an axis – from low to high threat and low to high cooperation. Burrows discusses that there are different ways to approach stakeholder categories, depending on their individual level of threat and cooperation.

Although there are many types of stakeholders, they are not all typically included in curriculum development. There is usually a group of individuals at the top of a curriculum hierarchy responsible for making most decisions regarding curriculum development (Taylor, 1999). Participatory curriculum development PCD is Taylor's response to involving insiders and outsiders in curriculum development. PCD attempts to
pinpoint all stakeholders who may have a say in the overall goal of education – learning (Taylor).

Agricultural communication curriculum

Agricultural communication educators are responsible for developing curriculum to prepare individuals to enter careers as agricultural communication professionals. This is a particular challenge because, in the 21st century, the profession has taken on an increasingly sophisticated and complex role, one that is “responsible for developing and disseminating news and marketing information related to food, agricultural, and environmental systems,” (Tucker, Whaley & Cano, 2003, p. 22). It is important that academicians and practitioners discuss challenges and issues to ensure that institutions of higher education evaluate and develop curriculum that meets the needs of industry and society.

Agricultural communication curriculum has its own body of literature developed over several decades. While research focusing on this specialty subject matter is not plentiful, it offers insight as to the history, trends and current status of agricultural communication programs.

“Agricultural journalism programs were among the early frontiers for journalism education in this country,” writes Evans (2004). As journalism programs became more developed and specialized, relatively less emphasis was placed on maintaining agricultural communication programs and course work. During this period, agricultural communication programs started to emerge in and transfer over to colleges of agriculture.
Agricultural communication differs from mass communication in its subject matter. "The difference lies in the communicator's knowledge of technical subject matter and the intended audience," wrote Boone et al. (2000, p. 103). Agricultural communicators were expected to have a subject matter specialization, which traditionally had not been required of traditional mass communicators.

Duncan (1957) conducted one of the first agricultural communication curriculum studies nearly 50 years ago. He surveyed agricultural journalists for their recommendations about agricultural communication curriculum. Survey respondents ranked news writing at the top of their list of important journalism classes that should be integrated into the curriculum. Practitioners who contributed to the survey noted the most important agricultural component to agricultural communication curriculum was agricultural marketing. Duncan's survey also addressed areas for curriculum improvement. Respondents noted that some of the shortcomings of entry-level agricultural journalists were poor writing skills and a lack of practical experience.

It was the communication skills Duncan noted above, in addition to an understanding of communication systems and human relations, which agricultural communication practitioners later identified as the most critical skills agricultural communicators needed to possess (Kroupa & Evans, 1976). Still another study identified some of the more specific skills agricultural communicators recommended incorporating into an agricultural communication curriculum, including news writing, feature writing, editing and photography (Kroupa & Evans, 1973).

Reisner's (1990a) research ended a 13-year drought of agricultural communication curriculum research. In her study, Reisner surveyed 30 colleges and
universities whose name appeared on an Agricultural Communicators of Tomorrow mailing list. She identified 26 institutions that had a combined agriculture and communication program, and four that did not. Of the institutions that offered undergraduate degrees in agricultural communication, only one conducted all of its coursework within the program. The rest of the programs relied on other departments, such as communication, to administer a substantial portion of the agricultural communication curriculum.

Reisner’s 1990 study showed the wide variation of administrative arrangements in place nationally:

The study found that the programs’ most predominant characteristic is variety. Four different types of administrative units, in colleges of agriculture, liberal arts, and humanities, offer agricultural communications majors. Agricultural curricular requirements vary from highly prescribed to no specific required agricultural courses. All schools require a core communications curricula plus electives. The program requirements closely parallel professionals’ curricular preferences, but fall short of recent curricular recommendations by agricultural deans and directors.

(Reisner, 1990a, p. 8)

At a 1993 National Agricultural Communications Summit, a group of researchers interested in assessing the preparation and development of agricultural communications professionals conducted a survey with U.S. agriculture-focused companies (including corporate leaders and human resource directors). The purpose of this study was to identify the industry’s issues, trends and developments. The respondents noted 101 items that were ranked and categorized into five groups. One of the categories the respondents identified as needing attention from the profession was curriculum. This part of the study focused on creating curriculum equilibrium – including finding a balance between
teaching journalism, analytical skills, technology and other related courses. In addition, it identified a central curriculum core that should include writing, editing, graphics and technology (Doerfert, Akers, Davis, Compton, Irani & Rutherford, 2004).

A later study of national agricultural communication organization leaders found that practitioners recommended that agricultural communication curriculum be flexible and allow students to specialize (Bailey-Evans, 1994). This study also encouraged curriculum developers to incorporate business, marketing, computer applications, internship experience and international relations into agricultural communication curriculum. The call for flexibility in curricula was later re-emphasized by Whiting et al. (2002).

A recent evaluation of agricultural communication curriculum concluded that current curriculum is not preparing students to be critical thinkers (Bisdorf-Rhoades, Ricketts, Irani, Lundy, & Telg, 2005). The authors argue that critical thinking skills are a necessity to enable effective communication about seldom understood and controversial agricultural topics. The study found only 1 percent of the 227 agricultural communication student-participants possessed strong critical thinking skills.

A follow-up study by Telg and Irani (2005) proposed recommendations for how instructors can integrate critical thinking skills into their curriculum. The authors surveyed 12 instructors and found that the following would be beneficial in building the critical thinking skills of students in agricultural communication programs: (a) real-world situations; (b) research; (c) writing; (d) other viewpoints; and (e) illustration of the benefits of strong critical thinking skills (Telg & Irani).
Evans (2004) believed that agricultural communication educators have an adequate grasp on the field’s academic base, which is necessary to develop improved curriculum. While earlier agricultural communication curriculum placed relatively more emphasis on micro-level skills, modern-day curriculum has a much wider scope that includes macro dimensions. Micro skills are fundamental skill-sets such as writing, editing, and graphic design; macro skills include more advanced expertise and knowledge, (such as critical analysis, knowledge of industry history and status, and information synthesis). In offering advice to advance agricultural communications, Evans encouraged educators to keep academic programs focused on journalism/communication skills – including teaching students how to collect, analyze, select and communicate information. Evans wrote that communication efforts that focused on the food and fiber systems were growing in importance. With this growth, there was an increased demand for knowledge, analysis of information, and interaction between producer and consumer than before, not only within the agricultural industry, but between agriculture and other societal units (Evans).

Although numerous colleges and universities offer programs in agricultural communication, there is no single standard that provides a structured educational framework for all programs (Whiting et al. 2002). In his text on the sociology of education, Ballantine (1998) stated that home departments greatly influence the academic programs they house. Tucker et al. (2003) similarly argued that programs operating under one department’s leadership may look different and produce graduates with different skill sets than agricultural communication programs under dissimilar leadership.
Reisner reported the following about administrative homes for agricultural communication programs: (a) ten were housed within other agriculture-related departments; (b) four were housed within an agricultural communication department; and (c) eight were housed in communication departments (1990a). Weckman et al. (2000) supported Reisner's conclusions about the variety of departments housing agricultural communication programs. Studying agricultural communication programs in the southern United States, these authors found all nine of the programs were housed within colleges of agriculture, but the programs varied according to placement within the college. Four programs were placed within academic departments, two were aligned with an affiliated program, two were stand-alone programs and one was part of an academic service unit (Weckman et al.).

Because agricultural communication programs have different departmental names and are housed in various departments, they also vary significantly in their objectives and desired skill training. Agricultural communication programs may be deficient in an area such as research because of the objectives the home department has for its learners and its faculty (Tucker et al., 2003). These authors further assert that the proper argument is not whether one home department arrangement is “better” than another, but whether differences between programs cause challenges or a lack of balance for the academic discipline at large.

Evans (2004) acknowledged that agricultural communication units fall under different academic structures. He argued that no matter what department houses them, the core curriculum needs to include courses that give students the skills they need to master and appreciate journalism’s unique elements, roles, and skills.
Academic agricultural communication programs exist within some colleges and universities even though there is "no course work specifically designated as agricultural communications," (Reisner, 1990b, p. 23). Of the 16 programs Reisner examined, 10 offered an agricultural communication program that did not offer any "course work specifically designated as agricultural communications," (Reisner, p. 23). Five programs offered courses that were exclusively skill-oriented, while another 10 offered a variation of courses on the micro- and macro-levels\(^1\). One program reported solely offering a macro-level course (Reisner).

Along with other branches of learning such as rural sociology and extension education, agricultural communication is a social science (Tucker, 1996). Curriculum needs to reflect this aspect of the field. As colleges of agriculture become increasingly science-based, it is important that the human and social curricular dimensions of communication are still present to ensure well-balanced teaching, research, and service programs (Evans, 2004).

Literature supports the need for academic institutions to frequently evaluate and periodically update their curriculum. There are several strategies academicians can use to guide these processes (including curriculum based assessment and participatory curriculum development). These strategies require those making decisions about curriculum to think beyond what is taught and to focus more intently on what is learned. In addition, there is strong support for inclusion of multiple stakeholders in the curriculum evaluation and development processes. Agricultural communication

\(^1\) Micro-level courses focus their efforts on offering practical experience outside the classroom and macro-level courses examine communication transfer among aggregate populations (Reisner, 1990b).
curriculum studies have traditionally included stakeholders from industry in their evaluation process.
CHAPTER 3

METHODOLOGY

This chapter provides a description of the procedures used to conduct this study. The sections addressed are as follows: subject selection, instrumentation, research design, data collection, and data analysis.

Subject Selection

The 2006 AgriMarketing Annual Marketing Services Guide was used as a sampling frame for this research. The AgriMarketing Annual Marketing Services Guide is a compilation of agricultural media, agencies, and businesses across the United States and Canada. Published yearly by AgriMarketing Magazine, the publication provides brief descriptions of each business, including size of firm, areas of emphasis, and detailed contact information. AgriMarketing published its first Services Guide 32 years ago. Sometimes referred to as the “Yellow Pages of the ag industry,” the publication lists more than 1,100 organizations that provide products or services to agriculturists in North America (AgriMarketing Annual Marketing Services Guide, 2006).

While this publication does not equally represent all careers, firms or individuals in the professional agricultural communication industry, it does reflect the major career areas and many of the most prominent firms. The publication was deemed appropriate for
use as a sampling frame due to its currency and its wide acceptance and recognition in the field.

A systematic random sampling technique was used to select subjects. The researcher first counted the number of directory pages within three sections of the guide: marketing communications agencies, U.S. print, and farm broadcasters. Some 56 pages were devoted to the three sections. The researcher divided this number by 20 and then selected a name at random from every nth page until 20 names were selected.

After subjects were identified, each was sent a letter by postal mail in April 2006 that notified them about the study, encouraged their participation, and alerted them that they would be receiving a phone call to schedule an interview. Two weeks later, the researcher started calling subjects, setting interview dates and conducting interview. Eighteen of the 20 individuals initially selected participated in a phone interview. Two subjects could not be contacted, declined to participate or could not be reached again after the initial contact. In these cases, the researcher selected the next name in the directory and contacted each individual for an interview. These subjects did not receive the introductory letter, but the researcher provided all of the information that the letter contained over the phone in the initial contact with them.

**Instrumentation**

An instrument was developed to guide the semi-structured in-depth interviews employed in this study. The instrument (Appendix B) included items that addressed each of the study objectives outlined in Chapter 1. An accompanying script (also provided in
Appendix B) was used to consistently preface the researcher’s interviews with each subject.

Where possible, the researcher modeled questions after those found in other studies reported in the literature. The researcher also met with agricultural communication faculty from the Department of Human and Community Resource Development to discuss content, phrasing and ordering of all items. Probes and open-ended-type questions were used to permit subjects to elaborate more fully in their responses.

Collecting data via phone interviews allowed the respondents to ask the researcher for clarity on questions. Although this rarely happened in this study, it was a benefit.

Questions were organized into four broad categories on the final instrument. The purpose of the first category was to collect selected demographic information about the subjects. Information collected included subjects’ job title; years in current position; years of communication experience; level of education; area of study in college; and extent of agricultural background.

Questions in the second category were primarily open-ended in nature and focused on the subjects’ perceptions about the field of agricultural communication. Subjects were asked to describe the importance of agricultural communication and to identify their role in the industry. Other questions focused on the impact of technology in their work or the field; their assessment of major challenges and trends facing agricultural communication; and whether media convergence and conglomeration had influenced agricultural communication efforts.
The third category of questions focused on the perceived importance of various skills and experiences as well as experience with and perceptions of recent agricultural communication graduates. The opening set of questions in this section asked subjects to respond to a series of skills and indicate how valuable they were when hiring a new employee. Subjects were asked to assign a score to each skill using a five-point scale with one being not important and five being very important. The skills assessed were as follows: journalism; risk/crisis communication; marketing; public relations; broadcasting; advertising; desktop publishing; science/technical writing; and agricultural background. The researcher allowed subjects to comment on each of the areas or to give a rationale for his or her numerical assessment.

The next set of questions asked subjects to respond to a series of extra-curricular activities and how important they were in preparing individuals to enter the agricultural communication industry. Subjects were once again asked to assess each item using a five-point scale with one being not important and five being very important. The items were as follows: international/study abroad experience; internship experience; extra-curricular (club/student organization) involvement; leadership roles; graduate degree; major/minor in agriculture; work experience; and business/professional ethics.

The final set of questions in this category were open-ended and focused on perceived necessary components of agricultural communication programs, experience with and perceptions of recent agricultural communication graduates, assessment of the job market for agricultural communication graduates, and advice for agricultural communication students or faculty regarding professional preparation in this field. The specific questions were as follows: (a) do you have an opinion on the amount of public
relations and marketing vs. journalism education in an academic program – should one outweigh the other?; (b) has your firm or business hired any agricultural communication graduates in the past five years – if you have not hired any, why not?; (c) describe your ideal new hire for an agricultural communication position?; (d) how well-prepared do you perceive new agricultural communication graduates to be – what are their strengths – their weaknesses?; (e) how would you assess the job market for new agricultural communication graduates in your area of work?; (f) what skills/traits will be valuable to new agricultural communication graduates in the future?; (g) are new agricultural communication graduates better prepared now than when you entered the industry – are there any particular weaknesses or problems you have observed/noted?; (h) what advice do you have for colleges or universities making decisions about curriculum development, courses, etc. in agricultural communication?; and (i) what advice do you have for recent graduates entering the agricultural communication industry?

The fourth category of questions asked subjects to reflect on their own training and to generate ideas for building or enhancing their current skill-base. The researcher asked (a) reflecting on your college days, from what coursework did you benefit the most; (b) Have you had any participation in or with university agricultural communication, journalism or communication programs since you graduated? If so, please describe; (c) Would you benefit from short courses/workshops/Extension programs on agricultural communication skills? If so, what topic(s) would interest you or would you benefit most from; (d) What professional organizations do you belong to? What benefits do you receive from being a part of professional organizations; (e) How well do professional organizations respond to industry challenges?
A final open-ended question included at the end of the interview allowed subjects to raise additional concerns or provide any other comments about the study topics or the interview process.

Face validity of the instrument was established by a panel of agricultural communication faculty in the Department of Human and Community Resource Development. Several iterations of the questionnaire were produced before the final version was completed. The researcher then field-tested the questionnaire with two local agricultural communication professionals. These professionals were similar in education and career to the study subjects but not included in the sampling frame. As a result of the field test, some slight changes in wording were made to enhance clarity. Reliability was addressed through the research design. The interviewer followed a script to preface the interview and then used a semi-structured questionnaire to administer the questions. All telephone interviews were taped and transcribed. Transcripts were then read and findings discussed by the lead researcher and two agricultural communication faculty to ensure uniformity in interpretation and coding. Inter-rater reliability was not an issue in this research as a single individual (the lead researcher) conducted all of the interviews.

**Research design**

Data were collected from respondents via a semi-structured questionnaire developed specifically for use in this study. The questionnaires were administered by telephone.

Collecting qualitative data allows a researcher to describe a situation from the perspective of those who participate in it “from the inside out” (Flick, von Kardorff &
Steinke, 2004). Qualitative data collection is known for being more intricate than other approaches to research. This methodology allows researchers to build a more tangible idea of the perceptions of others that could not be deduced by a standardized questionnaire (Flick et al.).

The role of the telephone in social science research has evolved over time. While previously considered inferior to alternative data collection methods such as mail surveys or face-to-face interviews, the telephone interview has come to be viewed as a legitimate and rigorous method for data collection. Data collection via telephone has been touted for its ability to create a conversation-conducive atmosphere, its ability to help break down social barriers, and its economic and timesaving efficiencies (Hopper, 1992; Babbie, 1989).

In addition, the telephone makes it possible to interview and converse with individuals across great distances and with those who may be widely scattered geographically. Modern cell phones make it possible for these conversations to take place when it is most convenient for interviewees, perhaps when they are sitting in an airport between flights or while they are traveling away from their home or office.

There are a few steps researchers planning qualitative telephone data collection should take (Berg, 2007). The first step should be to provide sound reasoning for the research project. The second step is to persuade the subjects to participate in the research. The final step is to make sure that the information gathered is detailed enough and significant enough to contribute to the study (Berg).

Researchers have noted that the telephone has become a central part of modern life at work and home, which makes it an appropriate data collection tool. "We respond
to the telephone's rhythms as traditional peoples have responded to rhythms of nature, summons of church bells, or other taken-for-granted experiential boundaries," wrote Hopper (1992, p. 4).

As noted in Bird, Rakow (1992) wrote that for many women, the telephone is a comfortable, personal way of conversing with individuals. When establishing the methodology for her research, Bird created a phone "visit" that subjects received as comfortable, unthreatening and pleasurable.

However, with these advantages come challenges. One of the disadvantages of telephone interviews is that they are fairly limiting on time – that it is difficult to conduct an interview that lasts more than 20 minutes (Bird, 2003). This issue was addressed in this research by limiting the size of the questionnaire and by arranging in advance with subjects a time interval that would be adequate to conduct the interview.

Another challenge associated with telephone interviews is the large amount of bogus phone interviewing and telemarketing that occurs (Babbie, 1989). The researcher addressed this disadvantage by sending notification letters to all individuals prior to calling. This communication helped alert subjects to the goals of this research and to enlist their participation.

The researcher controlled interviewer bias by audio recording and then transcribing all 20 interviews. In addition, the transcriptions were reviewed by three individuals (the researcher and two graduate committee members).

The research design employed in this study also specifically addressed several threats to external validity. Sampling error was controlled by the use of systematic random sampling. Names were picked at random from every n\textsuperscript{th} page of the
AgriMarketing Annual Marketing Services Guide 2006. This industry-wide directory includes an alphabetized listing of firms that represent a broad spectrum of agricultural communication career paths. Farm broadcast stations are listed alphabetically by state.

Frame error was addressed because the Marketing Services Guide was one of the most comprehensive listings for agricultural communication firms that was available. The most current directory was used for this purpose. There was frame error in the list as one initial subject could not be reached because the postal mailing address was incorrect. Follow-up phone calls were unsuccessful. The researcher randomly selected another subject to replace this individual.

Non-response error was minimized by ensuring a high level of participation among subjects. A letter was sent to notify subjects of the research project, followed by a phone call to schedule a time for the interview. This methodology resulted in a non-response rate of 10 percent.

Measurement error was controlled by establishing validity and reliability of the semi-structured instrument. Procedures for establishing validity and reliability are described in the previous section that discusses instrumentation.

Data analysis

Three interviews were recorded on an audio cassette recorder and the remaining 17 were recorded digitally for ease of transcribing. All recordings were transcribed. The semi-structured questionnaire included items that lended themselves to both qualitative and quantitative data analysis. Qualitative-type items were grouped by theme and reported in Chapter 4. Representative quotations from subjects were identified and used
to help illustrate and provide specificity to the various themes. Quantitative-type responses were tabulated and summarized with frequencies and percentages.
indicated they did not have a bachelor's degree, but had completed some college or a training program. Two of the respondents were women, 18 were men. Table 4.1 provides individual respondent characteristics.

<table>
<thead>
<tr>
<th>Subject Number</th>
<th>Title</th>
<th>Media Category</th>
<th>Years in Current Position</th>
<th>Years of Communication Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Managing Editor</td>
<td>Print Media</td>
<td>13</td>
<td>30</td>
</tr>
<tr>
<td>2</td>
<td>Editor and Publisher</td>
<td>Print Media</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>3</td>
<td>Director of Publication</td>
<td>Print Media</td>
<td>10</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>President and CEO</td>
<td>Marketing Communications Agency</td>
<td>17</td>
<td>33</td>
</tr>
<tr>
<td>5</td>
<td>President</td>
<td>Marketing Communications Agency</td>
<td>19</td>
<td>27</td>
</tr>
<tr>
<td>6</td>
<td>Assistant News Director and Farm Director</td>
<td>Farm Broadcast</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>7</td>
<td>Executive Editor</td>
<td>Print Media</td>
<td>10</td>
<td>36</td>
</tr>
<tr>
<td>8</td>
<td>Editor and Chief Editor</td>
<td>Print Media</td>
<td>18</td>
<td>36</td>
</tr>
<tr>
<td>9</td>
<td>President and Chief Executive Officer</td>
<td>Print Media</td>
<td>17</td>
<td>29</td>
</tr>
<tr>
<td>10</td>
<td>Chief Executive Officer</td>
<td>Marketing Communications Agency</td>
<td>10</td>
<td>32</td>
</tr>
<tr>
<td>11</td>
<td>Chief Executive Officer</td>
<td>Marketing Communications Agency</td>
<td>4</td>
<td>24</td>
</tr>
<tr>
<td>12</td>
<td>Farm Director</td>
<td>Farm Broadcast</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>13</td>
<td>Executive VP and Co-Owner</td>
<td>Marketing Communications Agency</td>
<td>14</td>
<td>42</td>
</tr>
</tbody>
</table>

Table 4.1: Subject Characteristics (n=20)
Table 4.1 Continued

<table>
<thead>
<tr>
<th>Number</th>
<th>Position</th>
<th>Industry/Agency</th>
<th>Age</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Owner and Chief Executive Officer</td>
<td>Marketing Communications Agency</td>
<td>42</td>
<td>53</td>
</tr>
<tr>
<td>15</td>
<td>Senior Vice President</td>
<td>Marketing Communications Agency</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>16</td>
<td>President</td>
<td>Marketing Communications Agency</td>
<td>3½</td>
<td>21</td>
</tr>
<tr>
<td>17</td>
<td>Editor</td>
<td>Print Media</td>
<td>5½</td>
<td>10</td>
</tr>
<tr>
<td>18</td>
<td>Editor and Chief</td>
<td>Print Media</td>
<td>15</td>
<td>31</td>
</tr>
<tr>
<td>19</td>
<td>Editor and Publisher</td>
<td>Print Media</td>
<td>2½</td>
<td>27</td>
</tr>
<tr>
<td>20</td>
<td>National Sales Manager</td>
<td>Farm Broadcast</td>
<td>3½</td>
<td>27</td>
</tr>
</tbody>
</table>

Subject Number | Highest Level of Education and year completed | Major
--- | --- | ---
1 | Bachelor's 1976 | Journalism and Sociology
2 | Bachelor's 1984 | Agricultural Communication
3 | Bachelor's 1992 | Journalism
4 | High school, some college | Agricultural Communication
5 | Bachelor's 1979 | Journalism
6 | Bachelor's 1991 | Communication
7 | Master's 1979 | Rural Adult Education
8 | Master's 1978 | Rural Adult Education
9 | Master's 1991 | Arts in Liberal Studies
10 | Master's 1974 | Journalism
11 | Bachelor's 1978 | Plant Science/Agronomy
12 | High school, some college | Agricultural Engineering/Ag Communication
13 | High school, some college | Fine Arts
14 | Bachelor's 1950 | Sociology
15 | Bachelor's 1973 | Agricultural Communication

Table 4.2: Subject Characteristics (n=20)

55
Table 4.2 Continued

<table>
<thead>
<tr>
<th></th>
<th>Bachelor's</th>
<th>Journalism</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Bachelor's 1997</td>
<td>Communication</td>
</tr>
<tr>
<td>17</td>
<td>Bachelor's 1974</td>
<td>Journalism</td>
</tr>
<tr>
<td>18</td>
<td>Bachelor's 1973</td>
<td>Journalism</td>
</tr>
<tr>
<td>19</td>
<td>Technical School</td>
<td>Radio and TV Broadcast</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>Program</td>
</tr>
</tbody>
</table>

Four respondents reported earning degrees in or studying agricultural communication while in college. Of the respondents who did not major in agricultural communication, only four (20 percent) were aware that academic agricultural communication programs existed at the time they entered college.

Subjects who had an agricultural background comprised 65 percent of the total sample. Seventeen of the respondents reported that having such a background has helped or would have been helpful to them in their careers. One respondent noted his own lack of understanding about production agriculture – a Chicago native, reported that he used to think all the corn growing beside the road was sweet corn.

**Attitudinal responses**

When asked to describe the importance of the agricultural communication industry, one theme continued to arise. The majority of respondents said the importance of the industry was to inform producers and consumers – on agricultural news and research. On the producer side of this function, respondents cited the importance of providing up-to-date weather reports, research findings, and other information necessary to make informed business decisions. Agricultural communicators also believed it was
important to provide consumers with information regarding the source of the food and fiber products they purchase, especially given the growing number of individuals who are removed from production agriculture.

<table>
<thead>
<tr>
<th>Importance of industry</th>
<th>Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>To inform (both producers and consumers)</td>
<td>13</td>
</tr>
<tr>
<td>To educate</td>
<td>3</td>
</tr>
<tr>
<td>To transfer technology</td>
<td>2</td>
</tr>
<tr>
<td>To support the agricultural brand</td>
<td>1</td>
</tr>
<tr>
<td>To translate</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 4.3: Common themes for importance of agricultural communication industry

Education was also noted as an import element of the industry. One respondent in particular said the importance of agricultural communications is to, "Educate the rest of the public about the plight of producers." In addition to informing and educating, two individuals specifically noted "technology transfer" as an important aspect of the agricultural communication industry.

Subjects described their individual roles in the agricultural communication process in a variety of ways. Some described an overall responsibility while others outlined more specific roles that pertained to their particular positions. Many agricultural communicators said their role was to provide news (including business updates and weather reports) to producers. Another portion of the respondents said their role was to develop and maintain an agricultural brand (including designing, advertising strategies, and preparing producers to talk to the press). One respondent noted that his role involved disseminating news while reflecting the values of his employer – including filtering information and adding view points. Those who noted more position-specific tasks said
their roles included producing a bi-weekly agribusiness publication, assembling and producing daily news, and sharing farmer success stories with others.

According to the responses provided, technology advancements had a tremendous impact on their work. Subjects noted that advancements have not only affected the availability of information and the speed at which they can disseminate it, but they have also affected the lives of producers (advancements in agricultural products and practices). These developments have reduced the number of people needed to help in the communication process, resulting in lost jobs. Another subject noted that technology has brought outlying and remote offices closer together. Technology has also added to agricultural communicators’ workloads. One subject said that when he used to leave the office, work was done for the day. However, E-mail is now accessible from home computers, making communicators such as him continuously available. This then extends the typical workday.

When asked to identify the major challenges and trends facing agricultural communications, respondents provided a variety of feedback with a few themes. The most predominant challenge subjects identified was industry consolidation, which often led respondents to discuss diminishing budgets and jobs. This concern is related to a challenge others identified. Agricultural communicators are striving trying to survive in a shrinking industry. Attracting advertisers is extremely important in their survival effort. Some respondents felt that advertisers might use their power as leverage.

Subjects were also asked to comment on whether media convergence and media conglomerations had influenced agricultural communication efforts. Seventeen respondents said media convergence has had an effect on the agricultural communication
industry. Respondents did vary on whether or not convergence has had a positive or negative effect. One respondent said convergence is not a negative thing; it just requires a learning curve. Another subject argued that different media outlets were not the same and integrating them did not have a positive outcome. Three respondents said they had not noticed media convergence having an effect on the industry.

A follow-up question asked respondents to comment on whether media conglomeration had effect on the agricultural communication industry. Eleven subjects responded that they had noticed media conglomeration affecting agricultural communication efforts. Eight said they did not notice any effects on the industry as a result of media conglomeration. One respondent did not comment on the question.

**Hiring and the future**

Tables 4.4 and 4.5 summarize findings for two qualitative questions in this study. Table 4.4 provides data on the perceived importance of hiring employees with particular skills.

<table>
<thead>
<tr>
<th>Skill Area</th>
<th>Mode</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journalism</td>
<td>5</td>
<td>4.35</td>
<td>.88</td>
</tr>
<tr>
<td>Marketing</td>
<td>4</td>
<td>3.90</td>
<td>.91</td>
</tr>
<tr>
<td>Public Relations</td>
<td>4</td>
<td>3.65</td>
<td>.80</td>
</tr>
<tr>
<td>Agricultural Background</td>
<td>3</td>
<td>3.55</td>
<td>.92</td>
</tr>
<tr>
<td>Science and Technical Writing</td>
<td>3</td>
<td>3.50</td>
<td>1.19</td>
</tr>
<tr>
<td>Desktop Publishing</td>
<td>2</td>
<td>3.25</td>
<td>1.40</td>
</tr>
<tr>
<td>Advertising</td>
<td>3</td>
<td>3.10</td>
<td>1.18</td>
</tr>
<tr>
<td>Risk/Crisis Communication</td>
<td>4</td>
<td>3.03</td>
<td>1.01</td>
</tr>
<tr>
<td>Broadcasting</td>
<td>3</td>
<td>2.90</td>
<td>1.06</td>
</tr>
</tbody>
</table>

Note: Responses are scaled 1 to 5, not important to very important.

Table 4.4: Perceived Importance of Hiring Personnel with Various Skills
As shown, respondents rated journalism as the most essential skill needed by new hires, followed by marketing and public relations. Advertising, risk/crisis communication, and broadcasting were rated as least important by the respondents. Table 4.5 summarizes respondents’ perceptions of various experiences and qualities needed to successfully enter the agricultural communication industry.

<table>
<thead>
<tr>
<th>Experience</th>
<th>Mode</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business/Professional Ethics</td>
<td>5</td>
<td>4.53</td>
<td>.60</td>
</tr>
<tr>
<td>Work Experience</td>
<td>4</td>
<td>4.23</td>
<td>.53</td>
</tr>
<tr>
<td>Internship</td>
<td>5</td>
<td>4.10</td>
<td>1.12</td>
</tr>
<tr>
<td>Leadership Roles</td>
<td>4</td>
<td>3.80</td>
<td>.94</td>
</tr>
<tr>
<td>Extra-Curricular Involvement</td>
<td>4</td>
<td>3.55</td>
<td>.94</td>
</tr>
<tr>
<td>Major/Minor in Agriculture</td>
<td>3</td>
<td>3.35</td>
<td>.88</td>
</tr>
<tr>
<td>Graduate Degree</td>
<td>3</td>
<td>3.00</td>
<td>.92</td>
</tr>
<tr>
<td>International/Study Abroad Experience</td>
<td>2</td>
<td>2.55</td>
<td>1.05</td>
</tr>
</tbody>
</table>

Note: Responses are scaled 1 to 5, not important to very important.

Table 4.5: Perceived Importance of Various Experiences and Qualities for Entry-Level Employees

Subjects were divided in their opinions of the amount of public relations and marketing versus journalism education an academic program should require. Nine respondents favored journalism education, and two favored public relations and marketing. The remaining respondents were either undecided or thought a combination of the two was appropriate.

Fourteen subjects responded affirmatively when asked if their firms or businesses had hired an agricultural communication graduate in the past five years. One reported not being sure. Of those who had not hired any agricultural communication graduates in the past five years, the most common reason given for not having done so was a lack of
agricultural communication applicants or simply that there had been no new-hires within that time frame.

The researcher asked each subject to describe his or her ideal new hire for an entry-level agricultural communication position. Nine respondents noted their ideal new hire would have an agricultural or farm background or at least knowledge of the industry. Nine respondents reported that it was essential to hire employees with strong communication skills, including writing, editing, design, English, interviewing, public relations, journalism, advertising, and photography. Past work experience was also important to the respondents as eight cited that professional or internship experience was important for new hires. Other respondents said it was critical for new hires to have strong business and computer skills. They also needed to possess a willingness to learn.

Subjects offered a variety of responses when asked to comment on the preparation of recent agricultural communication graduates (or communication/journalism students at large). The majority of respondents said new graduates were adequately prepared, especially in their command of computer technology. One respondent noted that new graduates possessed strong presentation skills, but often lacked a "strategic" skill set, such as problem-solving skills. Those who responded that new agricultural communicators were not well-prepared said they needed more training in marketing, writing, and entrepreneurship. Another respondent noted that new agricultural communicators "lack real world experience in our industry" and a strong work ethic.

Respondents provided a variety of reactions to the question concerning the job outlook for new agricultural communication graduates. Eleven respondents characterized the job market as tight or limited. Four noted that job opportunities existed within the
public relations and advertising sectors of agricultural communication. Five respondents had a positive outlook on the job market – one noted there is a good market for the right type of person. Another said the market is favorable for individuals who have technology skills and those who have been involved (had internships, held leadership positions, and have work experience). As one respondent noted, “With originality and creativity, anyone can get a job.”

Another respondent characterized the job market in the following manner:

“. . . it is not as robust as it used to be in terms of numbers of positions available. There has been so much shrinkage in the industry. However, the positions that are available can pay very well for the people who really stand out.”

Respondents were also asked to predict what professional skills would be valuable to agricultural communication graduates in the future. Eight respondents said it will be important for future graduates to be technologically savvy. They will need to stay current with changes in electronic communication and be able to work across media outlets. Three respondents said it will be important for future graduates to have analytical skills, three respondents emphasized the importance of communication skills, and two individuals said marketing skills will be important in the future. Two respondents said it is critical for agricultural communicators to remain “teachable” and to realize that learning is a lifelong process. One particular respondent noted the importance of knowing how to mass customize communication efforts.

“The concept of mass customization in journalism – being able to offer a wide variety of knowledge and information but make it appear to the user [that] the
newsletter was written just for them and covers the stuff they care about. It is
going to be an extremely important skill.”

Thirteen respondents said agricultural communication graduates are now better
prepared than when they entered the industry. There were three respondents who said in
some ways they are better prepared and some ways they are not as well prepared (they
now have better computer skills, but lack strong work ethic). Others noted that current
graduates were better prepared because of their science background and internship
experiences. Those who thought new agricultural communication graduates were not
currently as well prepared as they have been in the past cited the effects of political
indoctrination as well as a lack of a strategic skill set. One respondent recommended
more agricultural science courses to combat overly simplistic views about the changing
structure of agriculture. Three individuals did not feel as though they were qualified to
answer the question because of their lack of interaction with new agricultural
communication graduates.

Respondents were also asked to offer advice to colleges or universities making
decisions about curriculum development in agricultural communication. This response set
was widespread. The most common theme that surfaced three times was to have
academia stay connected with the industry and to include professionals in curriculum
decision making.

“If [colleges and universities] are in the process of developing [agricultural
communication] programs they [should] bring in professionals that are practicing
in the areas they’re trying to develop programs for . . . we can help identify at least current needs, and maybe help brainstorm what future needs will be.”

Two respondents suggested that faculty complete ‘internships’ in the field to make sure they are in tune to the industry’s needs outside of academics. “I’d encourage them to take their faculty and give their faculty internships in the real world.” Another respondent said introducing students to research and design on the undergraduate level is important.

“If you do not go on to graduate work, you still have to report on research. And you still need to know the basics, because statistics and statisticians together lie, and you need to know where that happens.”

Industry professionals also think colleges and universities need to make sure students have intensive writing courses.

“To me, it is critical when [agricultural communication graduates] come here they hit the ground running. These publications do not have big staffs, and we cannot spend a whole deal of time editing their copy. They need to be really skilled on writing.”

In addition to requiring writing courses, it is important that students have plenty of opportunities to practice what they learn while in college. Providing them an outlet to publish what they write (for example student newspapers and agricultural magazines) is critical to building their credentials, especially as new graduates.
Overall, colleges and universities need to recognize the need for agricultural communication courses. "It would be foolish to overlook the need for [agricultural communication] courses. It's not just the people who are going to go to work for magazines, radio and television stations . . ." In addition to this, the colleges and universities need to market their program graduates. "The advice I would give is if [colleges and universities] have a good program and good candidates come out of that program, find a better way to market them."

One respondent said colleges and universities should consider work-study programs; they are very helpful in preparing students to enter the industry. "You work for a term, then study for a term. Instead of four years, it takes five or six. Then [students] can get experience they need to really understand what is going on . . ."

Business ethics and skills should also be integrated into agricultural communication programs. One respondent said business ethics were eroding in society and in the workplace. Another said it was not critical that employees have extensive business background, but having a basic understanding of it will enhance job performance.

Advice was also sought from respondents for recent agricultural communication graduates entering the industry. Professionals said new graduates need to sharpen their writing skills, stay current with the agricultural industry, and develop an understanding of the business side of agriculture (statistical analysis, marketing, and economics). Respondents also advised recent graduates to gain ample work experience and to have a strong work ethic. Other respondents offered more philosophical advice.
“Understand that you’ll be a teacher as well as a learner.”

“Don’t expect to be rich all at once . . . if you are going into it to really try to help and serve those readers out there whoever they may be – whether farmers or whether they are somebody else – if that is your goal then you probably will be satisfied and happy. The money will come.”

“Be aware of what’s going on – reading and listening and keeping up to speed on all of the issues of the day. Understanding the importance, not undervaluing the importance that agriculture has . . .”

“The best advice I could give a recent graduate is to find out where their passion lies. Find out how they would like to make a difference that when they retire and they are getting their gold watch, what do they want to be remembered for.”

**Education and professional development responses**

The third section of the questionnaire asked subjects to reflect on their education and professional development. The researcher asked each subject to reflect on his college days and to share what coursework was most beneficial. Responses were varied, but the two most common responses were writing and journalism. Table 4.6 identifies the most common responses to this question. Other courses that respondents shared were titled “Food for Man,” “Persuasion,” “Group Discussion Methods,” and “Acting for Non-majors.”
<table>
<thead>
<tr>
<th>Coursework</th>
<th>Frequency of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing (news writing and English composition)</td>
<td>5</td>
</tr>
<tr>
<td>Journalism</td>
<td>5</td>
</tr>
<tr>
<td>History</td>
<td>3</td>
</tr>
<tr>
<td>Broadcast (voice and articulation, learning how a station works, and broadcast news)</td>
<td>3</td>
</tr>
<tr>
<td>Economics (agricultural and regular)</td>
<td>2</td>
</tr>
<tr>
<td>Psychology</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 4.6: Beneficial Coursework for Industry Professionals

The majority (14) of respondents reported participating in college or university journalism, communication, or agricultural communication programs since graduating from or attending college. Of these, 10 reported serving as guest lecturers. Others have hired interns from colleges or universities, advised Agricultural Communicators of Tomorrow (ACT) student organizations, or judged student competitions such as NAMA.

Sixteen respondents said they would benefit from a short course, workshop, or Extension program on agricultural communication skills. Three said they would not benefit from such programs, and one respondent was unsure. Table 4.7 features the top three topics of interest to agricultural communication professionals.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Frequency of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology (trends in, Web-site development, blogging)</td>
<td>6</td>
</tr>
<tr>
<td>Photography (digital imagery)</td>
<td>2</td>
</tr>
<tr>
<td>Hearing from producers (expectations of agricultural communication industry)</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 4.7: Short Course, Workshop, or Extension Programs of Interest
Regarding professional affiliations, all but one respondent reported belonging to at least one professional organization. The most common organizations mentioned were National AgriMarketing Association; American Agricultural Editors’ Association; Livestock Publications Council; National Association of Farm Broadcasters; and the American Association of Advertising Agencies. Table 4.8 provides frequencies for these and other professional organizations mentioned.

<table>
<thead>
<tr>
<th>Professional Organization</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAMA (CAMA)²</td>
<td>9(1)</td>
</tr>
<tr>
<td>AAEA</td>
<td>7</td>
</tr>
<tr>
<td>NAFB</td>
<td>5</td>
</tr>
<tr>
<td>LPC</td>
<td>2</td>
</tr>
<tr>
<td>NAAJ</td>
<td>2</td>
</tr>
<tr>
<td>PRSA³</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 4.8: Respondents’ Reported Memberships in Professional Organizations

Respondents were also asked to identify benefits they received from their professional organization membership. Eight respondents said networking opportunities were a benefit. Respondents also said professional organizations benefit them by providing agricultural industry updates (four responses) and continuing education opportunities (one respondent noted ethics education in particular). Other respondents said the opportunities for professional development and idea exchange are also benefits of belonging to a professional organization.

¹ Refer to Appendix C for the full names of these professional organizations
² CAMA: Canadian Agri-Marketing Association
³ Public Relations Society of America
The final question asked subjects to comment on how well they perceived professional organizations to respond to industry challenges. The majority (17) of the respondents provided positive feedback as to how well they perceived professional organizations to respond to industry challenges. One respondent said the following about the professional organizations he belongs to, “I think they make a good attempt, and always fall short.”

At the conclusion of interviews, the researcher invited subjects to comment on or add anything they thought would be appropriate. The following is a brief discussion of the thoughts shared after this invitation.

One respondent stressed the importance of journalism in the agricultural communication industry. “The journalism skills are essential . . . the other stuff is good, but you can learn it.” Overall, respondents highly value journalism skills when looking to hire new employees (Table 4.4) and they placed high value on the journalism courses they had in college (Table 4.6).

Another respondent said new agricultural communication graduates are not expected to come out of college as specialists. He said it is important for new communicators to gain a variety of industry experience, and eventually, they’ll find their area of expertise. “For the first year, just experience a lot of different opportunities and areas. You might surprise yourself in what finally does interest you most.”

One respondent emphasized the importance of student NAMA chapters and encouraged other professional agencies and organizations to get involved with universities. “I think whatever can be done to get agencies or organizations involved in
[student organizations] is in the best interests of the schools, of the students, and of the agency."

Perhaps one of the most unique follow-up comments to this study addressed the current generational gap in the agricultural communication industry.

"I don’t think there’s ever been a stronger in business generational gap in terms of work ethic... Now you got a lot of old timers... people in their fifties and people in their twenties that is not just a gap in terms of age, but a gap in terms of mindset. I think there’s a lot being taught and a lot being discussed to those people in their fifties on how to work with Generation Y. I think it would behoove universities and/or Generation Y to understand the front end of that generation as well."
CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Purpose of study and research objectives

The purpose of this study was to make recommendations for college and university faculty to consider in their efforts to strengthen agricultural communication curriculum. The researcher gathered and synthesized advice and insights by industry professionals via telephone interviews using a semi-structured questionnaire. The results of this research provide agricultural communicators and educators a range of options and recommendations to consider as they develop undergraduate curriculum in this specialized area of study. As society continues into the 21st century, it is important that the agricultural communication industry is ready to respond to the needs of a more diverse, more mature, and growing population (Ballenger & Blaylock, 2003). This includes educating and training individuals to successfully enter the agricultural communication industry as professionals.

The following are the study’s specific research objectives:

1. Examine how professional agricultural communicators describe their role in the industry.

2. Examine professional agricultural communicators’ perceptions of the scope and importance of agricultural communication.
3. Identify some of the major challenges and trends of the industry as perceived by industry professionals.

4. Identify professionals’ perceptions of essential skills, experiences and expertise required of new graduates entering the field.

5. Assess professionals’ perceptions of the level of preparation that new graduates bring to the workplace.

6. Identify the skills and forms of expertise that professionals believe will be needed by future graduates.

7. Gauge professionals’ perceived needs for workshops and continuing education opportunities.

8. Assess professionals’ perceptions of agricultural communication professional organizations in meeting industry challenges.

Like all curriculum review efforts, this project raises complex questions about educational goals and purpose: What is the mission of the agricultural communication program? What characteristics should an agricultural communication graduate have and why? What skills will be important for future communicators? How can academicians plan curriculum that is proactive instead of reactive?

Methodology

The researcher used a well-known industry publication, the AgriMarketing Annual Marketing Services Guide 2006, as the sampling frame for this study. Subjects were randomly selected to participate in the study. Qualitative data were collected
through telephone interviews. The researcher used a semi-structured script to guide interviews with each subject. The script was pilot-tested with two agricultural communication professionals. The researcher made initial contact with subjects through an introduction letter sent through the U.S. Postal Service. Follow-up phone calls were then made to conduct the interviews or to set up an interview date and time. All interviews were recorded and transcribed for analysis.

While the findings from this research can be of significant value to agricultural communication curriculum stakeholders, it is important to emphasize the limited external validity of the data. Due to the research design employed in this study, it would be inappropriate to generalize findings beyond this sample or to suggest changes in curriculum based solely on these data. Rather, the data are best interpreted and used to call attention to areas deserving of more discussion by academic and industry stakeholders. Emerging themes from this work may particularly suggest fruitful lines of future inquiry or discussion.

About respondents

Individuals that participated in this study were a seasoned group of agricultural communication professionals whose experience ranged from a decade to more than a half-century. The group also held an array of high-level professional titles in their organizations, including managing editor, executive editor, farm director, senior vice president, and president and chief executive officer. The industries represented by the respondents were included media/publishing, farm broadcasting, and marketing communications agencies.
Summary of findings

Study respondents provided feedback regarding the agricultural communication industry at large, hiring and the future, and educational and professional development. A majority of the respondents said providing information to consumers and producers was their primary role in the agricultural communication industry. Technology has influenced the way they go about fulfilling this role. They also identified several challenges the agricultural communication industry faced, including industry consolidation, the most common response.

The majority of the respondents in this study valued journalism, marketing, and public relations skills when they hire new employees. In addition to these skills, they also placed a high value on business and professional ethics, work experience, and internship experience when selecting new employees. Respondents were split as to whether they favored agricultural communication curriculum that focuses on public relations and marketing versus journalism. The majority of respondents said their firm or business had hired an agricultural communication graduate within the past five years. When asked to describe their ideal new employee for an agricultural communication position, respondents said they would look for someone with an agricultural/farm background (or at least an understanding of it). They would equally look for strong communications skills. According to the majority of respondents, the new agricultural communication graduates they interact with were adequately prepared to enter the industry, especially in their mastery of technology. However, professionals said new graduates lack work experience and work ethic. Although new graduates were mostly prepared to enter the industry, they may have a hard time finding a job as many respondents said the job
market for agricultural communicator was limited. Respondents offered insight as to what skills they think future agricultural communicators need—most commonly, industry professionals said future grads will need to be technologically savvy. Despite a few noted weaknesses, the majority of respondents indicated that recent agricultural communication graduates were better prepared to enter the industry than when the respondents entered the industry. Respondents did advise new agricultural communication graduates to improve their writing skills, stay up-to-date on agricultural news, and develop a general understanding of business (including marketing, economics, and financial analysis). Respondents also provided some advice to colleges and universities making decisions about curriculum development. The most common response to this open-ended question was to have academia stay closely connected with industry and to consult with industry professionals regarding curriculum development.

When respondents were asked to reflect on their college experience, they reported that writing and journalism courses had benefited them the most. The majority of respondents had participated in college or university journalism, communication, or agricultural communication programs since they graduated or attended college (most commonly, respondents had served as guest lecturers). Although each of this study’s respondents had an extensive communication background, the majority of them said they would benefit from a continuing education course (such as a short course, workshop, or Extension program) on agricultural communication skills. The most common topic the respondents wanted to learn about was technology (including technology trends, Website development, and blogging). Some professional organizations offered opportunities for members to participate in such workshops. Of the 20 individuals interviewed for this
study, 19 belonged to at least one professional organization. Respondents said professional organization membership benefited them in several ways (including networking opportunities, agricultural industry updates, and continuing education). Lastly, the majority of respondents provided a positive response when asked how well professional organizations respond to industry challenges.

Discussion of results

In higher education circles, there is a current preoccupation with keeping the focus of education on learning. The question raised in this first section of discussion is “keep the focus on learning what?” Respondents in this study offered advice and provided ideas on a variety of topics they recommend colleges and universities to teach or implement into an agricultural communication curriculum. Some of the ideas – such as teaching students how to work with members of an older, more seasoned generation—may be things college faculty may not consider as options for advancing their programs or keeping them competitive. However, they are worth considering if industry professionals suggest them as potential improvement strategies.

According to the respondents, it was important that agricultural communication educators impart analytical and problem-solving skills to their students. Previous research has found agricultural communication curriculum lacking in these areas (Bisdorf-Rhoades, et al., 2005). With the growing amount of information available via the Internet, it is essential that individuals have the knowledge and ability to read and critically analyze information. After all, the purpose of the agricultural communication industry (as defined by respondents) was to inform – both producers and consumers. To accomplish
this, communicators must be able to filter large amounts of information from an informed, critical perspective.

The study findings also indicated that a primary focus of learning should be on technology. Seven respondents said that agricultural communicators of the future must have strong technology skills – future agricultural communicators need to keep up with changes in electronic communication. Technology education can provide future agricultural communication professionals how to address technology as an industry challenge and how to use it in their favor to stay competitive.

The respondents were generally very positive about the preparation of recent agricultural communication graduates entering the job market. They cited several areas as particular strengths among recent graduates, such as mastery of computer technology and superior technical communication skills due to multiple college internships. Some respondents acknowledged that recent graduates’ knowledge of computer skills may be due largely to the fact that they have “grown up” with computers and technology, as opposed to many current professionals who have learned, and are having to learn, such skills on the job. As one respondent quipped, “… I think actually grads coming out of school are far better prepared than, you know, us old guys that had to kind of muddle our way through it.”

Although graduates were technologically prepared to enter the agricultural communication industry, technology both hindered and helped the industry at large. One respondent said it used to cost his company $20,000 to create a brochure, which now, because of advances in technology, can now be completed for $4,000. Technology has also reduced the resources (including staff and funds) needed to operate a communication
firm/business effectively. Because of technology, magazine spreads, advertisements, radio spots, and other communication pieces can be submitted, proofed/reviewed, and approved electronically. For communicators this means that they might not be physically working in close proximity with others who are on their production team. A copy editor may work out of an office in one state and a graphic designer may work out of another remote location in a different state. It is evident that there is a strong need for the strong business/professional and work ethics that study respondents emphasized repeatedly in this study. Despite technology making production simpler and more efficient, the communicator completing the work needs to have the drive, determination, and skills to see the project through.

Although technology has made sharing information cheaper and quicker, some agricultural communicators still struggle to stay competitive. Because some target audiences are not technologically savvy, they cannot be reached through certain media outlets (e.g. electronic newsletters or podcasts). Advances in Web technology have made it possible to quickly post information for audiences around the globe to access at any time. Companies sometimes struggle with this though as Web-sites must be updated regularly (one study respondent recommends daily) in order to drive audiences back to the site. As a result of not being completely up-to-date on communication technology, many production agriculturists still rely on print communication to deliver the information they need to make business decisions. However, the diminishing number of production agriculturists results in a lower amount of subscribers to print publications and a higher per copy cost of production.
Technology has made mass customization possible. This trend in communication is growing in popularity as a response to the need to reach a specific target audience effectively and efficiently. Publishers have started to mass customize on-line newsletters and Web-sites. This makes it possible for producers who specialize in grain production to receive information targeted to their respective production area. General practice has been for animal producers, grain producers, and other agriculturists to receive the same piece of communication – but with limited applicability to their local production area. In the 21st century, electronic communication has made it possible for communicators to mass customize electronic communication. It is an inexpensive way to reach producers and make them feel as though the communication piece was tailored especially for them.

Technology has also driven media convergence. Because the majority of respondents said this particular trend in communication had affected the agricultural communication industry, it is important that college and universities provide their students with an understanding of how a story written for a newspaper differs from one written for a radio broadcast. Technology, in a way, has blurred the lines between media outlets, but successful communicators will know how to write for each one effectively. As one respondent warned, it is not appropriate to imply that communication skills for a specific medium can be automatically applied to other media.

Curriculum can ensure that future agricultural communicators have the skill set it takes to manage communication technology down the road. They must know how they can use technology to reach audiences in an efficient way. Because the agricultural industry continues to grow in scope, curriculum at colleges and universities needs to grow with it. Academic institutions need to offer courses that introduce students to
current trends in communication so that they're prepared to serve the information needs of producers and consumers in all agricultural sectors.

Not only do colleges and universities need to continue teaching their students technology skills, they also need to keep the focus of learning on writing. Agricultural communication programs have traditionally touted journalism as the core discipline of their curriculum. Not surprisingly, respondents in this study reaffirmed that writing continues to be a core competency in agricultural communication. In addition, a number of respondents forcefully argued that business course work – economics, marketing, branding, data analysis – was essential for entry-level employees. One respondent put all of these areas in perspective when he said, “All writers need to understand that they are not going to get paid unless their company is successful in marketing. We like to tell all of our employees, including those who think of themselves as writers, that you are in sales. You are in sales because the quality of what you put out – the accuracy of what you put out – determines whether people will renew next year...” According to another, “. . . I don't know how you go about writing anything in this country without having an economic background – even just basic economics.” Another respondent was more specific in stating that agricultural communication students need more instruction on publication sources of revenue and the workings of “the predominant type of magazine today, which is a controlled, or free, circulation magazine . . .”

Related to work ethic is the following issue raised by a respondent about unrealistic expectations of some new hires and interns.

“These kids today are so much better prepared and so much more knowledgeable than in the past about certain things. . . They come in and know how to write.
You do not have to worry about that aspect. On a couple of things though, they do come in thinking that they want everything now. They think about being here a year. They think they should be promoted – whether there is a position or not. So that is an issue. I don’t know where that is coming from -- whether it is society or the colleges are filling them with this.”

Previous literature supports the need for a central curriculum core that includes writing, editing, graphics, and technology (Doerfert et. al, 2004). The current research identifies an additional embellishment that might warrant further discussion: a “dual-core” feature that requires a significant component of journalism and business course work in the major. While many universities and colleges allow students to take significant business, economics, or marketing course work as part of the degree, journalism is still widely considered the underlying core discipline. The dual-core concept would place more equitable emphasis on the two areas (journalism and business) for all students, rather than simply allowing some students to take more business courses if they choose.

In addition, several respondents defended the importance of social science and liberal art instruction for agricultural communicators, with some citing such course work as the most influential courses they had experienced in their own college careers. References to the importance of history, social psychology, behavioral studies, demographics, and English composition were common.

Findings from this research also suggest some specific ways that agricultural communication programs can respond to current industry trends such as convergence.
About 60 percent of journalism schools area already teaching convergence in their curriculum (Castañeda, Murphy, and Hether, 2005). Several respondents mentioned how new media channels and techniques – blogs, text messaging, podcasting – have changed not only the way they conduct business, but also their outlook on the agricultural communication function. As one respondent said of the increasing number of agricultural bloggers, the industry is seeing more of these “self-appointed communicators.”

According to another respondent, entry-level employees should know that being able to write across media outlets is necessary. “I have hired my last single-medium-only communicator,” one respondent said. “When you work for my team now, you will come knowing that you are a multimedia communicator and that your preparation skills in print, online, on-air … will make you a more valuable employee to me,” a respondent said. Another said, “… I think it’s becoming more important to be able to cross over -- cross all media – when you’re involved in ag. communications.”

Findings from this study also support recent recommendations from the literature to integrate ethics education into agricultural communication curriculum (Reisner, 1990a; Boone et al, 2000). As the industry advances (with changes in technology and how business is conducted), it is critical that those writing stories, marketing products, and working with the public have strong business ethics.

Two of the respondents indicated that education of agricultural communication concepts could be enhanced considerably by requiring faculty to complete an industry internship. This suggestion was closely related to an ongoing and often lively discussion in the field regarding the ideal mix of academic and industry credentials needed for agricultural communication faculty. Not all agricultural communication faculty have both
communication credentials and industry experience, and some may have neither. While such faculty may well benefit from an industry internship, it is important to note that many lack the flexibility to engage in these experiences, or they may be discouraged from doing so by departmental or university promotion and tenure guidelines. Such guidelines often place more emphasis on building research or outreach programs than on completing industry experiences or internships.

While this situation does not suggest that industry internships for faculty are a "bad" idea, it does reiterate a concept introduced in Chapter 2 from the sociology of education literature: The university home department of a faculty member, through its culture and functions, exerts considerable pressure on faculty and can have a significant impact on academic programs. In light of this situation, it seems that both industry stakeholders and faculty might benefit by discussing not only curriculum recommendations, but also, when appropriate, the unique and complex decision-making systems and cultures at universities that profoundly affect both faculty and curriculum. This topic, along with others related to sustaining and improving programs nationally, may be deserving of more focused attention by professional organizations such as the Association for Communication Excellence (Whiting et al., 2002).

Respondents also provided advice on the intangible qualities that can make new graduates look more attractive to potential employers. Several respondents indicated wanting to see a genuine interest and commitment to learning on the part of new hires—they do not want curiosity or learning to stop with college. As one respondent said, "...it's been my experience when we bring folks in that an ag background is not that critical, but a genuine interest in learning about it is critical." According to another, "... they (new
hires) really need to have a curiosity and a flexibility in how they approach their work because in the last 15 years the nature of the work has changed radically and it likely to continue to change.”

Respondents also indicated the importance of employees who exhibit honesty, humility, and a willingness to learn new things. As one respondent said, “… you can train anything but attitude.”

Other respondents commented that hiring good people was difficult because of the shortage of qualified individuals who want to work in agricultural communication. One respondent framed the issue in this manner: “That’s the biggest problem I have, is finding good solid people who have a grasp of the business and, and want to work in the business… Because a lot of people still to this day don’t do it as … it’s not the same as consumer communications. It’s not the same – it’s a step down.”

For at least one respondent, a commitment to agriculture was as important as good writing and editing skills. “If I was interviewing them, I would have to see in them a sense of personal mission for wanting to make a difference in agriculture. In other words, I would not want somebody who saw this as any job, like, ‘I can write about agriculture, or I can write about puppies or goldfish.’ I have to see evidence that they for some reason are just … they feel a sense of personal mission to make a difference in the field of agriculture.”

Another advised new graduates to be more aggressive in promoting themselves and making contact with potential employers: “Get your name out there. Because, typically, like I said, we don’t hear that much from students graduating with agricultural communication degrees, and yet we do recruit fairly heavily to replace or to add to people
we have on staff. If we were aware of them on a regular basis, we perhaps would consider them a lot more than what we do.”

Respondents' reported mixed experiences with industry trends prominent in literature, such as media convergence. Surprisingly, a number of respondents reported having no direct experience with consolidation. However, those who did report personal experience, pointed out that many positions in the field have been permanently lost and that the field had also lost bright minds. According to one respondent, “There are fewer editing jobs. I think that is unfortunate because I’ve seen some really good people go into other fields . . . they’re not contributing their talents to ag. journalism the way they used to.”

While respondents generally gave professional agricultural organizations high marks for their programming and professional development opportunities, some voiced concerns. One respondent was particularly alarmed about the state of ethics in the industry and the failure of professional groups to respond to this issue. “There is a real issue in ag. journalism on ethics,” he said, “and I just do not see [specific organization] doing anything, and I don’t think there is anything they can do.”

Overall, subjects appeared to enjoy conversing about the industry. At first, some seemed hesitant, one in particular saying, “I’ve only got 15 minutes…” He then talked for half an hour. In every case, respondents were willing to share ideas, anecdotes, and insights after the researcher developed some rapport with them. Not one individual declined to answer a question due to discomfort with the interview process. The only questions that went unanswered were those that respondents did not feel qualified to answer.
Additional thoughts

Collecting data through telephone interviews provided a way for the researcher to probe for more or clarifying information. If a respondent gave a brief or incomplete answer without elaboration, the researcher asked a follow-up question seeking more information. This type of interaction was not possible with mail survey methods. Based on the volume of responses and their enthusiasm, it seemed clear that subjects felt comfortable with the data collection process.

Despite the success of the data-collection method used in this study, the process might have been improved with some adjustments. For instance, the research process, if conducted again, might have proceeded more smoothly had the researcher asked fewer questions. An advantage of collecting the wide range of responses is the multitude of channels opened for consideration and future research.

One of the most challenging aspects of the methodology employed in this research was timely scheduling of respondents. Most have demanding positions that require significant travel. However, nearly all were willing to participate once a suitable date and time was determined.

The willingness of subjects to participate in this study was somewhat surprising. Even though few had completed agricultural communication degrees, almost all were passionate about their jobs and their role in serving the agricultural industry through communication. Respondents appeared to take questions seriously and provided candid, sincere responses. Such responses suggest that the respondents clearly appreciated and wanted to be included in curriculum development.
Another surprising aspect of the study was the amount and type of feedback received about new agricultural communication graduates. Even though many subjects thought new graduates were somewhat well-prepared to enter the industry, others voiced major concerns about work ethic, analytical skills, and writing proficiencies of new graduates.

A final surprising finding was the relatively low importance attached to graduates completing an international or study-abroad experience. One respondent felt that studying abroad was important for personal growth. Another said, “There are a few things that are more global than agriculture and yet I can think, as I go through our staff, probably three or four of us have had any international experience.” However, most other respondents indicated that this experience was not a necessity to prepare graduates to enter the profession.

A challenging aspect of evaluating and developing curriculum is that some colleges and universities are decreasing the number of credit hours required to fulfill a bachelor’s degree. Academicians may find it increasingly difficult to develop a comprehensive curriculum within the revised credit hour requirements.

**Implications for future research**

This study engaged agricultural communication industry professionals in a discussion about the agricultural communication industry at large and how they perceive the preparation of new graduates entering the industry. It would be appropriate for another research study to ask academicians to respond to what this sample population shared. Is the advice practical? Is there room for some of the suggested changes in
Perhaps a focus group of faculty and industry professionals would be appropriate to bring these two curriculum stakeholders to the table. As a whole, they could address industry challenges and make recommendations for agricultural communication curriculum that would help address the challenges. This might help the industry become proactive instead of reactive.

Additional research was also needed to focus exclusively on technology in agricultural communication. From the communicator standpoint, what specific skills will new graduates need to be competitive in an increasingly shrinking market? Technology advancements in production agriculture were also important to study. Do new and current agricultural communicators have the background, knowledge base, and skills to accurately write about such advancements in a way the farm and non-farm public can understand?

Finally, it would also be appropriate to conduct a follow-up study with recent agricultural communication graduates. Do these individuals feel they were adequately prepared to enter the industry? What coursework benefited them most? What do they think would have benefited them? How would they assess the advice and recommendations that emerged from this study? Such a project could be especially compelling if the research involved following a particular cohort of agricultural communication graduates for several years after their graduation from college. Where do they start their professional careers? Are they in the agricultural communication industry or do they start somewhere else, gain some experience, and then pursue employment in the industry?
Future work in curricular revision should also be conducted with the understanding that curriculum is multifaceted and dynamic. Curriculum experts cannot be content with serving today's needs— they must also think about trends and developments that will be important in the future. The complexity of curriculum development means there is no single stakeholder group or methodology that alone can provide sufficient information to update and strengthen curriculum. For instance, identifying perceptions and recommendations from industry professionals, as was done in this study, was valuable and necessary as faculty seek to improve students' technical skills in preparation for successful employment. However, the baccalaureate degree program includes other important dimensions, such as exposure to multiculturalism, social and behavioral sciences, and the liberal arts and humanities. All of these components, and others identified by each college or university, are part of the holistic undergraduate experience that produces "educated" persons. Curricula thus have many expected outcomes other than employment preparation. Comprehensive curriculum evaluation must take this fact into account.

The information and recommendations gathered from industry professionals in this study can serve as a starting point for colleges and universities revising or building agricultural communication curriculum. As literature suggests, stakeholders, such as industry professionals, should be included in curriculum development (Taylor, 1999). The respondents of this study reaffirm the need for academic institutions to have a connection with industry when it comes to curriculum development. In addition, findings show that industry professionals are eager to participate in such efforts. Since many study respondents were already involved in colleges and universities in some capacity (such as
guest lecturing), it is certainly appropriate to extend their role inside the academic setting to include evaluating and offering suggestions for curriculum development.
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APPENDIX A
CURRICULUM STAKEHOLDERS\(^1\)

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governing entities</td>
<td>State and federal government, sponsoring religious organization, governing board, SHEEO.</td>
</tr>
<tr>
<td>Administration</td>
<td>President, senior administrators</td>
</tr>
<tr>
<td>Employees</td>
<td>Faculty, administrative staff, support staff</td>
</tr>
<tr>
<td>Clientele</td>
<td>Students, parent/spouses, tuition reimbursement providers, service partners, employers, field placement sites</td>
</tr>
<tr>
<td>Suppliers</td>
<td>High school, alumni, other colleges and universities, food purveyors, insurance companies, utilities, contracted services</td>
</tr>
<tr>
<td>Competitors</td>
<td>Direct: two-and four-year colleges and universities</td>
</tr>
<tr>
<td></td>
<td>Potential: distance providers, new ventures</td>
</tr>
<tr>
<td></td>
<td>Substitutes: employer-sponsored training programs</td>
</tr>
<tr>
<td>Donors</td>
<td>Individuals (includes trustees, friends, parents, alumni, employees, industry, foundations . . . )</td>
</tr>
<tr>
<td>Communities</td>
<td>Neighbors, school systems, social services, chamber of commerce, special interest groups . . .</td>
</tr>
<tr>
<td>Government regulators</td>
<td>SHEEOs, state and federal financial aid, FIPSE, federal research support, IRS, Social Security, Department of Education, Patent Office</td>
</tr>
<tr>
<td>Non-governmental regulators</td>
<td>Foundations, institutional and programmatic accrediting bodies, church sponsors</td>
</tr>
<tr>
<td>Financial intermediaries</td>
<td>Banks, fund managers, analysts</td>
</tr>
<tr>
<td>Joint venture</td>
<td>Consortia, corporate co-sponsors, partners, research and educational services</td>
</tr>
</tbody>
</table>

\(^1\) Burrows (1999)
APPENDIX B

INTRODUCTION LETTER AND SCRIPT

April 3, 2006

Address Block

Dear Agricultural Communication Practitioner:

Hello from The Ohio State University. As a graduate student in the Agricultural Communication Program at OSU, I am making plans to conduct a research project for my master’s thesis. You are one of 20 individuals I have randomly selected from the 2006 AgriMarketing Services Guide to participate in my study, which focuses on recommendations for improving undergraduate agricultural communications curricula at colleges and universities. I will be using phone interviews to tap into your thoughts and perceptions about the industry and the preparation of new graduates entering the field. I anticipate the interview taking about 20 minutes of your time.

As a study participant, your responses will be confidential. I am the only individual who will know the names of respondents and how each replied. If you so wish, I will also provide you with study results once they are finalized. At the conclusion of the study, I will share results with colleges and universities to help them fine-tune their curricula based on your recommendations.

I will be contacting you via phone in the next few weeks to arrange and conduct the interview. If there is a particular time or day that would be best for me to call you, please forward that information to me at mullett.50@osu.edu or call me at 614.738.2626.

Thank you in advance for your time and participation. I look forward to talking with you in person soon.

Respectfully,

Marissa A. Mullett
Graduate Student
Agricultural Communication
Interview script

Hello from Ohio State University. My name is Marissa Mullett and I am a graduate student in the Agricultural Communication Program at OSU. I am collecting data for my master’s thesis and you are one of 20 individuals I have randomly selected from the 2006 AgriMarketing Services Guide to participate in my study, which focuses on recommendations for improving undergraduate agricultural communications curricula at colleges and universities. I will be using phone interviews to collect data and anticipate the interview to take about 20 minutes of your time. However, you may terminate the interview at any time. Do you consent to participate in the study?

Your responses will be confidential. I am the only individual who will know the names of respondents and how each replied. My findings will not identify any individuals and there will be no way to identify you. As we proceed, is it okay that I tape record our conversation to assist me later in accurately transcribing your responses?

Thank you. Let’s begin.

INTERVIEW QUESTIONS

Name: ________________________________________________
Employer: ____________________________________________
Title: ________________________________________________
Years in Current Position: ___
Total years of communication experience? ___
Education / Degrees Earned / Graduation Year(s): High School ___ Associate’s ___ Bachelor’s ___ Master’s ___ Ph.D. ___
What was your area of study in college?

______________________________________________________
If not agr. comm., were you aware of agricultural communication academic programs? Yes ___ No ___

Do you have an agricultural background? Yes ___ No ___

If yes, do you think an agricultural background has been helpful in regard to your present position? Yes ___ No ___

If no, do you think an agricultural background would benefit you in your current position? Yes ___ No ___

ABOUT THE FIELD

1. What is the importance of agricultural communication?

2. What is your role in the process?

3. What impact has advancements in technology had on your work or the field?

4. What are some of the major challenges and trends facing agricultural communication?

5. Has media convergence influenced agricultural communication efforts? How so? How about media conglomerations?

HIRING AND THE FUTURE:

6. On a scale of 1-5 (with 1 being not important and 5 being very important) how valuable is it to hire employees with skills in the following areas?

   ▪ Journalism ___
     ○ Comments:

   ▪ Risk/Crisis communication ___
     ○ Comments:

   ▪ Marketing ___
     ○ Comments:

   ▪ Public relations ___
8. Do you have an opinion on the amount of public relations and marketing vs. journalism education in an academic program – should one outweigh the other?

9. Has your firm or business hired any agricultural communication graduates in the past five years? If you haven’t hired any, why not?

10. Describe your ideal new hire for an agricultural communication position.

11. How well prepared do you perceive new (college graduates in general OR agricultural communication graduates) to be? What are their strengths? What are their weaknesses?

12. How would you assess the job market for new (college graduates in general OR agricultural communication graduates) in your area of work?

13. What skills/traits will be valuable to new (college graduates in general OR agricultural communication graduates) in the future?

14. Are new (college graduates in general OR agricultural communication graduates) better prepared now than when you entered the industry – better now than in the past?

15. I ended up omitting this part of the question because it was so similar to question 11. What advice do you have for colleges or universities making decisions about curriculum development, courses, etc. in agricultural communication?

16. What advice do you have for recent graduates entering the agricultural communication industry?

**Education/Professional Development:**

17. Reflecting on your college days, from what coursework did you benefit the most?

18. Have you had any participation in or with university agricultural communication, journalism or communication programs since you graduated? If so, please describe.

19. Would you benefit from short courses/workshops/Extension programs on agricultural communication skills? If so, what topic(s) would interest you or would you benefit most from? Ethics education, law, magazine writing, photography?

20. What professional organizations do you belong to?
   - What benefits do you receive from being a part of professional organizations
21. How well do professional organizations respond to industry challenges?

I greatly appreciate your willingness to participate in this study. I would be more than happy to share the results of the study with you once the research is complete...would you like me to mail you a copy of the results? As we wrap things up, is there anything else you want to contribute to the survey?

Thank you for your time and input.
APPENDIX C

AGRICULTURAL COMMUNICATION PROFESSIONAL ORGANIZATIONS

A. Agricultural Communicators in Education (ACE): ACE members are writers, editors, photographers, graphic designers, videographers, electronic media producers, marketing and public relations practitioners, researchers, Web developers, database programmers, distance education specialists, educators and managers. They work in universities, government agencies and research organizations in the public sector, as well as companies and firms in the private sector.\(^1\)

Web-site: www.aceweb.org

B. Agricultural Relations Council (ARC): ARC is a national organization of professionals specializing in public relations and public affairs serving the agricultural, food and fiber industries.\(^2\)

Web-site: www.agrelationscouncil.org

C. American Agricultural Editors’ Association (AAEA): As a service organization, [AAEA’s] mission is to provide opportunities for professional improvement and networking to agricultural editors, writers and photojournalists.\(^3\)

Web-site: www.wwwww.ageditors.com

D. Cooperative Communicators Association (CCA): CCA is an organization of 350 professionals who communicate for cooperatives. [CCA] is unique in both its mission and membership. [CCA] work[s] toward helping members excel in communications - from writing, photography, and editing to video, layout, and design. Just as important, [CCA] emphasize[s] ideas and strategies aimed at making communications more successful for cooperatives.\(^4\)

Web-site: www.communicators.coop

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\(^1\) From www.aceweb.org
\(^2\) From Agricultural Communication 200 Course Notes
\(^3\) From www.ageditors.com
\(^4\) From www.communicators.coop
E. Livestock Publications Council (LPC): Founded in 1974, this non-profit organization was designed to serve the livestock publishing industry. Its goal is to provide a forum through which members can obtain information on how to improve their overall effectiveness and value to both readers and advertisers. LPC functions as an information exchange by allowing publication personnel and other members to discuss common problems with peers and arrive at workable solutions that benefit both.¹

Web-site: www.livestockpublications.com

F. National Association of Farm Broadcasters (NAFB): NAFB is dedicated to serving the interest of the agricultural community and creating value for its Broadcast member stations and networks. NAFB is an established liaison between farm broadcast stations and networks and the Agri-Marketing community of companies and agencies.²

Web-site: www.nafb.com

G. National Association of Agricultural Journalists (NAAJ): NAAJ is a professional, international group of agricultural editors and writers with a membership spanning the United States and Canada. Formerly the Newspaper Farm Editors of America, and then the National Association of Agricultural Journalists, it was organized in 1952 to promote the highest ideals of journalism and agricultural coverage.³

Web-site: http://naaj.tamu.edu

¹ From www.livestockpublications.com
² From www.nafb.com
³ From http://naaj.tamu.edu