

2013

Utilizing community media to facilitate cross-cultural communication between LSU AgCenter field and state agents and Louisiana agricultural producers

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UTILIZING COMMUNITY MEDIA TO FACILITATE CROSS-CULTURAL
COMMUNICATON BETWEEN LSU AGCENTER FIELD AND STATE AGENTS AND
LOUISIANA AGRICULTURAL PRODUCERS

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The School of Human Resource Education
and Workforce Development

by

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December 2013

ACKNOWLEDGEMENTS

Many people contributed to the success of this study and I would like to take this opportunity to express my gratitude to them. This study would never have been completed without their help.

First, I would like to thank committee members, Dr. Earl Cheek, Dr. Janet Fox, Dr. Earl Johnson, and Dr. Krisanna Machtmes, my major professor. The advice you gave helped me as I travelled down the dissertation path.

In addition, I would like to thank the LSU AgCenter agents who allowed me to attend their field days and collect data. I really wanted to learn from the producers themselves what information they needed and wanted to see on the LSU AgCenter's website and, by allowing me to collect data during your field days I was able to do just that. I also would like to thank the LSU AgCenter for keeping me employed during my doctoral stint.

I would like to thank my grandmother, Mildred "Nana" Harmon, who let me hole up at her house in Johnsonville, S.C. over Thanksgiving break as I finalized Chapters 1-3.

I also would like to thank my mother, Connie Bensing Coolman, who threatened to ground me if I made a grade of C or lower while in grades K-12. Her drive and support helped build the solid foundation that I stand on today. It was with her encouragement that I developed an early appreciation for education that has remained solid throughout the years.

Finally, I would like to thank my husband, Rance Attaway, for being understanding and supportive as I spent weekends researching for and writing my dissertation. Rance, you really helped me accomplish this goal and I am ever so grateful.

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ABSTRACT

The primary purpose of this study was to determine how Louisiana agricultural producers get information related to their crops. Specifically, this study examined how Louisiana agricultural producers used the Louisiana State University (LSU) AgCenter's website and other media sources so that it could be determined which form of community media could be used to facilitate cross-cultural communication between LSU AgCenter field and state agents and Louisiana agricultural producers.

Data for this study were obtained from 187 usable surveys completed by Louisiana agricultural producers. The data were analyzed to determine if producers utilized the LSU AgCenter website, the frequency they utilized it, detect the trust Louisiana producers had in information provided by the LSU AgCenter on its website, ascertain what additional information Louisiana producers would like to see provided on the LSU AgCenter's website, determine if social media was an acceptable means of communicating with producers, and identify factors related to how and when information provided by the LSU AgCenter was used in Community media vehicles.

The majority of the producers surveyed were white, 97.3%. The largest group of participants were in the 36 to 45 year age group (25.7%), followed by participants in the 46 to 55 year age group (25.1%).

The study's findings indicated The Delta Farm Press was the source producers used to get agriculture-related information. Ag consultants were the second most used source that Louisiana agricultural producers used to receive information. LSU AgCenter agents/offices were the third highest source and the Louisiana Farm Bureau Federation was listed as the fourth highest source for agriculture-related information. The survey showed the LSU AgCenter's website as the fifth highest source for Louisiana agricultural producers to use for agriculture-related information.

It was also found that the largest number of producers who accessed the LSU AgCenter's website did so on a monthly basis and that they trusted material provided by the LSU AgCenter. In addition, the study found Louisiana producers wanted a mobile weather application, as well as more information about markets, more interactive material, and information available in Spanish. In addition, several of the producers indicated they were not aware of all of the services offered on the LSU AgCenter's website as is seen in Table 22. For instance, weather information is one of the services producers indicated they would like to see on the website. Weather information is available on the website, but it may not be structured so that it is easily found by visitors to the website.

CHAPTER ONE INTRODUCTION

Need for the study

The purpose of this study was to determine how Louisiana agricultural producers obtained agriculture-related information provided by the LSU AgCenter to help them with their farming operations. Specifically, this study looked at how Louisiana agricultural producers utilized information provided by the LSU AgCenter on its website, www.lsuagcenter.com, as well as in other community media venues to show how using community media was a vital tool to use in relaying the LSU AgCenter's messages to Louisiana agricultural producers.

A cross-cultural communication approach was used as a basis for the study. Cultures studied were: the academic culture and farming culture. A review of literature shows cross-cultural communication has been around as long as humans have been in existence. This communication is said to be transmitted in many ways such as: gestures, expressions, and languages, which exhibit a vast range of behaviors (International Society for Augmentative and Alternative Communication (ISAAC), 2012). One definition of communication, by members of ISAAC is, "the essence of human interaction and learning" (ISAAC, 2012). The two cultures focused on in this study are the educational culture and the Louisiana farming culture. It is important to determine how the farming culture obtains and uses information provided by the LSU AgCenter because the AgCenter is mainly funded through Louisiana tax dollars and; therefore, it must provide information Louisiana taxpayers deem valuable so that it can continue to exist (LSU AgCenter, Focus on the Budget, 2013).

Communication plays an important role in interaction and learning. According to Hall (1959), there are several message systems, but "language is the most technical of the message systems" (p. 51). Because language plays such an important role in communication, it is

important for people from different backgrounds to be able to communicate. This is said to be done through cross-cultural communication, activities that allow people to adapt to other cultures in order to achieve what they want to achieve. This study focused on communication between two cultures: the LSU AgCenter (academic culture) and Louisiana agricultural producers (rural culture).

In the essay, *Cross-Cultural Adaptation and Perceptual Development*, Yoshikawa writes, “The process of cross-cultural adaptation is not a simple phenomenon. It involves a life history of a person, transcending the substitution of one culture for another. It involves “the conscious, as well as the unconscious changes in the individual” (Yoshikawa, 1988, p. 140). With today’s technology, people have easier access to a variety of cultures, many with their own language and other cultural differences. In his book, *Language and Mind*, Chomsky (2000) wrote that language was innate. “When we study human language, we are approaching what some might call ‘human essence,’ the distinctive qualities of mind that are, so far as we know, unique to man,” he said (p. 88). Now that humans have the ability to interact more easily with people from other cultures, it is even more important to practice cross-cultural communication so that we can more easily share ideas. This is especially true for public entities such as the LSU AgCenter; which houses its administrative staff, many researchers, and agents on a state university campus, Louisiana State University in Baton Rouge, as well as in offices throughout the state, and is funded with Louisiana taxpayer dollars.

The LSU AgCenter is one of 10 institutions within the Louisiana State University System (LSU AgCenter, 2013, About Us). Its mission is to provide Louisiana agricultural producers with research-based educational information to help improve their lives (LSU AgCenter, 2013, About Us). The LSU AgCenter is comprised of research stations and Cooperative Extension

Service offices across the state. Faculty and staff at each of these locations conduct research and provide educational programs designed to enhance the lives of Louisiana residents (agricultural producers) (LSU AgCenter, 2013, About Us). Because the LSU AgCenter is a part of the LSU System, it is publically funded (LSU AgCenter, 2013, Frequently Asked Questions). In order to create a positive knowledge transfer from LSU AgCenter employees to Louisiana agricultural producers, it is important to determine the most efficient method of information transmittal. One such method is utilizing community media, which provides an effective means of sharing information. Community media is a term used to describe different types of media used by members of a community – geographical or virtual – for communication including: print media, such as newspapers and magazines; electronic media, including radio and television; and network media, including the Internet (Jankowski, 2002).

Purposes and objectives

The primary purpose of this study was to determine how Louisiana agricultural producers get information related to their crops. Specifically, this study examined how Louisiana agricultural producer agricultural producers used the Louisiana State University (LSU) AgCenter's website and other media sources so that it could be determined which form of community media could be used to facilitate cross-cultural communication between LSU AgCenter field and state agents and Louisiana agricultural producers. Specific objectives designed to guide the research included the following:

Overall objectives:

- To identify factors related to Louisiana agricultural producers' knowledge of materials offered by the LSU AgCenter, as well as determine how this knowledge was gained through community media – specifically the Internet on the LSU AgCenter's website, www.lsuagcenter.com.

- To test the acceptability and use of material provided by the LSU AgCenter in community media vehicles, specifically newspapers and the Internet.
- To document material that appeared in/on media vehicles specifically, newspapers and the Internet, that facilitate communication from LSU AgCenter experts and the public by publicizing information provided by the AgCenter.

Specific objectives:

1. To describe Louisiana agricultural producers on the following demographics:
 - a) Age
 - b) Gender
 - c) Race
 - d) Parishes farmed in
 - e) Number of years farming in Louisiana
2. To determine the frequency Louisiana agricultural producers accessed the LSU AgCenter's website to gain agriculture-related information.
3. To determine if social media was an acceptable means of communicating with producers.
4. To determine the trust Louisiana producers have in information provided by the LSU AgCenter on its website to help them in their operation(s).
5. To determine what additional information Louisiana agricultural producers would like to see provided on the LSU AgCenter's website.
6. To identify factors related to how and when information provided by the LSU AgCenter was used in Community media vehicles.

Significance of the study

Information gained from this study may be used by faculty at other Land Grant institutions to determine how best to provide agriculture-related information to producers all over the United States. Because Land Grant universities are located in every state, the information found in this study, as well as any possible trends could be used by faculty all over the United States to help them communicate with their audiences and, in turn, become more productive. By learning how to communicate more effectively, agents and researchers associated with Land Grant institutions would become more effective by becoming more productive.

The findings of this proposed study will provide helpful information for the LSU AgCenter and other Louisiana organizations who want to determine what information Louisiana agricultural producers want or need, and how these organizations can share their information with agricultural producers. This study ultimately will provide information that will allow state government and other officials to determine how to share information so that all Louisiana agricultural producers will benefit. Because the LSU AgCenter is funded primarily by public funds, from taxpayers, it is essential the organization provides information the public, or taxpayers, can easily utilize.

Definitions of terms

The terms defined below will help give a clearer understanding of the terms used in this study related to information gathering by agricultural producers living in Louisiana.

Agricultural producer – An individual who farms 200 acres or more of any of the following crops: corn, cotton, rice, soybeans, sugarcane, sweet potatoes, and wheat. These can include low-sales farms and high-sales farms as defined by the United States Department of Agriculture (USDA). (USDA, 2013).

Bandwidth – A range of frequencies within a given band, in particular. The range of frequencies used for transmitting a signal. (Merriam-Webster Dictionary, 2013).

Bounce rate – Bounce rate was the percentage of visits that go only one page before exiting a site (Google Analytics, 2013).

Communication – The imparting or interchange of thoughts, opinions, or information by speech, writing, or signs (Merriam-Webster Dictionary, 2013).

Community – A social group whose members reside in a specific locality, share government, and often have a common cultural and historical heritage (Merriam-Webster Dictionary, 2013).

Community media – Community media is any form of media that was created and controlled by a community, either a geographic community or a community of identity or interest. Community media was separate from commercial media, state run media, or public broadcasting (Howley, 2005).

Cross-cultural communication – It is a process of exchanging, negotiating, and mediating one's cultural differences through language, non-verbal gestures, and space relationships (Ting-Toomey, 1997).

Culture – This is the behaviors and beliefs characteristic of a particular social, ethnic, or age group: the educational culture; the farming culture (Merriam-Webster Dictionary, 2013).

Decentering – To cause to lose or shift from an established center or focus; to disconnect from practical or theoretical assumptions of origin, priority, or essence (Merriam-Webster Dictionary, 2013).

High-sales farms – These are farms with annual gross sales between \$100,000 and \$249,999 (USDA/ERS, 2013, Farm Typology section).

Interlinking – This is when pages from one website are linked with pages from another website (Merriam-Webster Dictionary, 2013).

Knowledge transfer – This is a process by which the source's knowledge was made accessible to recipient. (Cummings & Teng, 2003).

Low-sales farms – These are farms with annual gross sales less than \$100,000 (USDA/ERS, 2013, Farm Typology section).

Media multitasking – This is the concurrent use of multiple media (Roberts & Foehr, 2008).

Online community – This is a virtual community, or a community comprised of individuals who interact via computers.

Social media – This is a means to transmit, or share information with a broad audience using computers via the Internet (Hartshorn, 2010).

Social networking – This occurs when groups of people with common interests engaged with one another on computers via the Internet (Hartshorn, 2010).

Trust – This is assured reliance on the character or ability of someone or something. It is also the belief that someone or something is reliable, good, honest and/or effective (Merriam-Webster Dictionary, 2013).

User-generated media – This is new media whose content is made publicly available over the Internet, reflects a certain amount of creative effort, and is produced outside of a professional realm. UGC is a term used to describe forms

of content such as video, blogs, digital images, audio files, and other forms of media that were created by users and is publically available to other users. User-generated content is also called consumer generated media (CGM). (Vickery & Wunsch-Vincent, 2007).

CHAPTER TWO REVIEW OF LITERATURE

Communities of people have been in existence for as long as mankind has been in existence. Yoshikawa writes, “The process of cross-cultural adaptation is not a simple phenomenon.” In addition, Yoshikawa writes that cross-cultural communication involves a life history of a person, transcending the substitution of one culture for another. It involves “the conscious, as well as the unconscious changes in the individual” (Yoshikawa, 1988, p. 140).

What is Community Media (Journalism)?

In “Making Community Media Work,” Carpentier, Lie, and Servaes (2003) define community as “...close and concrete human ties...” (p. 6). They list three types of communities:

- Traditional – geography and ethnicity.
- Reconceptualization 1 – supplementing the geographical with the nongeographical, such as:
 - Community of Interest, or
 - Virtual or online community.
- Reconceptualization 2 – supplementing the structural/material with the cultural, such as:
 - Interpretative community, or
 - Community of meaning.

The authors state that community media should be geared towards a community, regardless of the nature of the people the community is comprised of. A definition by the Association of Community Broadcasters (AMARC, 1994) reads that community media should “promote the participation of (the) community.” Carpentier et al. (2003) list four multi-theoretical approaches they say define community media. These approaches are: community

media that serves a community, community media as an alternative to mainstream media, linking community media to civil society, and community media as rhizome. A detailed look at each of these approaches is provided here.

- Approach 1: Serves a Community. The authors state the importance of community media in this approach is to let the people of the community be heard. This approach gives “ordinary” people an opportunity to have their voices heard (Carpentier et al., 2003, p. 8).
 - The importance of community media in these approach includes:
 - Strengthening the people of the community.
 - Allowing members of the community to participate in community activities.
 - Members of the community are free to discuss issues related to the community.
 - Letting underrepresented people have a voice (Carpentier et al., 2003, p. 15).
 - Threats to community media in this approach are:
 - The media must depend on the community.
 - Getting members of the community to gain interest in two-way communication.
 - Lack of two-way communication skills and interest. No technology available to allow for two-way communication (Carpentier et al., 2003, p. 15).

- Approach 2: Community Media as an alternative to Mainstream Media. In this approach, the authors state that mainstream media tend to be oriented towards different types of elite groups, which often results in a structural bias. But community media is a medium where all groups, including minority groups, have a voice.
 - The importance of community media in this approach are:
 - Community media offered different ways of organization.
 - Community media offered representations different from those originating from mainstream media.
 - Many voices could be heard.
 - Diversity of formats and genres (Carpentier et al., 2003).
 - Threats to community media are:
 - No financial or organizational stability.
 - Seen as unprofessional, inefficient.
 - Have little political influence (Carpentier et al., 2003).
- Approach 3: Linking Community Media and Civil Society. By defining community media as part of the civil society, these media can be considered a “third voice” (Carpentier et al., 2003, p. 260) between state media, state-owned media, and private commercial media.
 - The importance of community media in this approach are:
 - Community media is important for democracy.
 - Allows all groups to participate in the media.
 - Allows for all groups to be heard (Carpentier et al., 2003, p. 15).

- Threats to community media are:
 - Community media and commercial media both fight for the same recognition.
 - Community media does not see advertising as a prime source of income. This could lead to financial disaster.
 - Community media is seen as inefficient.
 - Community media lacks the staff to constantly follow all issues (Carpentier et al., 2003).
- Approach 4: Community Media as Rhizome. This approach involves community media reaching out across borders and linking together, or establishing a connection between, pre-existing gaps. In the case of community media, such linkages can be established without the media losing their identities.
 - The importance of community media in this approach is:
 - Community media is a place where people can collaborate.
 - Helps the democratic process by allowing diverse groups to work together.
 - Questions public and commercial media organizations.
 - Community media is hard to control (Carpentier et al., 2003).
 - Threats to community media in this approach are:
 - It doesn't see itself as a place for people to collaborate.
 - Community media has to work with civic organizations in some fashion, which could threaten its ability to remain independent.

- Community media doesn't have a clear common ground which would lead to it not being able to work with other organizations without becoming dependent on them (Carpentier et al., 2003).

This study focused on Approach 1 and Approach 2 in using this information to create its argument for utilizing community media to facilitate cross-cultural communication between LSU AgCenter staff and the public. Both of these approaches are what Carpentier et al. (2003) called “media-centered approaches”, while the other two approaches are more “society-centered” (p. 2). In Approach 1, the authors define community as “...close and concrete human ties, as ‘communion’, as a collective identity, with identifying group relations (Carpentier et al., 2003, p. 6). They state community media are oriented towards a community (geographically, spatially, virtually, or otherwise). Topics that appear in community media are chosen by professional communicators and target the needs and interests of the audience (Carpentier et al., 2003). Access by community members and participation of community members were considered key defining factors (Carpentier et al., 2003). Berrigan further defines community media as, “...media to which members of the community have access for information, education, entertainment, when they want access. (Community media) are media in which the community participate, as planners, producers, performers. They are the means of expression of the community, rather than for the community,” (Berrigan, 1979, p. 8).

Approach 2 defines community media as an alternative to mainstream media, supplementing mainstream media on the organizational, as well as the content levels. The organizational level shows community media exists independently from state and market. At the content level, community media offers more variety than mainstream media. The main reason given for this is that a higher level of participation of different societal groups exists.

Community media also is oriented towards giving a voice to various social movements, minorities, and sub/counter-cultures. In addition, community media also puts an emphasis on self-representation, which results in a more diverse content. Because community media is so diverse, it has room for experimentation with content and form, which can be seen as “a breeding ground for innovation, later often recuperated by mainstream media” (Carpentier et al., 2003, pp. 12-13).

Carpentier et al. (2003) define the media-centered approaches as “autonomous,” and the society-centered approaches as being “in relationship to other identities” (p. 2). This idea is shared by others, such as Jankowski (2002), as well.

Jankowski (2002) define community media as “...a diverse range of mediated forms of communication...” (p. 6) including:

- Print media such as newspapers and magazines,
- Electronic media such as televisions and radios, and
- Electronic network initiatives that has characteristics of both print and electronic media.

In addition, Jankowski (2002) lists “the general characteristics” that are found in community media. According to Jankowski (2002), these characteristics are:

- Objectives: to provide news and information based on the community members’ needs.
- Community residents own and control local government and community-based organizations.
- Content is locally generated and produced.

- Production of community media involves non-professionals and volunteers.
- Distribution is done through ethernet, cable television infrastructure, or other electronic network.
- Audience is located within a relatively small, clearly defined geographic area.
- Financing is essentially non-commercial (Jankowski, 2002).

There are several forms of community media including: newspapers, radios, television stations, websites, print journals and online journals, online blogs, and more. But, while the public may have several media venues from which to choose for local news, local television stations were found to be the number one source of information for most Americans (Pribble, Goldstein, Fowler, Greenburg, Noel & Howell, 2006). The authors said this is because local television stations' newscasts devote significant airtime to news items of local interests, making local community television stations the primary source of information for most Americans outpacing all other media sources by a margin of 2-to-1 (Pribble et al., 2006).

Community newspapers

Community newspapers are another source of local news. According to Lauterer, a community newspaper is one that "...is a publication with a circulation under 50,000, serving people who live together in a distinct geographical space with a clear local-first emphasis on (local) news, features, sports and advertising" (Lauterer, 2006, p. 1). A "more liberal definition of community newspapers," he said, includes papers serving not just geographical communities, but also communities of ethnicity, faith, ideas, or interests (Lauterer, 2006, p. 1). People have been shown to be loyal to their community newspapers. A 2011 study by the National

Newspaper Association (NNA) and the Reynolds Journalism Institute at the Missouri School of Journalism and published in Editor and Publisher magazine shows 74% of people living in communities served by community newspapers read their local newspaper each week. The survey also shows that 48% of the readers prefer printed copy to the online version of their local newspaper (NNA & Reynolds Journalism Institute at the Missouri School of Journalism, 2011). NNA President Reed Anfinson said the study showed people believed in community newspapers.

“The survey shows a majority of respondents believe that the newspaper does a better job of providing background and depth on stories essential to citizens,” Anfinson said. “Further, the newspaper is more useful to them personally than any other news source. It not only highlights the strong bond between local communities and their newspapers, but demonstrates that people value journalism” (NNA & Reynolds Journalism Institute, 2011). The study also shows:

- 74% of those surveyed read a local newspaper each week.
- Those readers, on average, shared their papers with more than two people.
- People spend about 38.95 minutes reading their local newspapers.
- 73% read most or all of their community newspapers.
- 43.8% kept their community newspapers six or more days (shelf life).
- 61% of readers read local news very often in their community newspapers while 48% said they never read local news online (just 11% said they read local news very often online).
- Of those going online for local news (167 respondents), 52% found it on the local newspaper’s website, compared to 20% for sites such as Yahoo, MSN or Google, and 25% for the website of a local television station.

- 33% of those surveyed read local education (school) news very often in their newspapers, while 68% never read local education news online.
- 27% read local sports news very often in their newspapers, while 70% never read local sports online.
- 40% read editorials or letters to the editor very often in their newspapers, while 64% never read editorials or letters to the editor online.
- 80% thought governments should be required to publish public notices in newspapers, with 23% reading public notices very often in their newspapers.
- 70% had Internet access in the home, but 80% never visited the Web site of their local chambers of commerce.
- Of those with Internet access at home, 89% had broadband access. According to the study, 51.8% of people surveyed said the local community newspaper was their primary source of local information, compared to 16% who sought information from relatives and 13.2% who got their information from television news sources (NNA & Reynolds Journalism Institute, 2011). In addition, the study shows readers were 7 times more likely to have gotten their news from community newspapers as compared to the 7.4% who indicated they got their local information from the Internet (NNA, 2011). Fewer than 6% of those surveyed were found to get their local news information from the radio. While community newspapers have been found to carry more local news than regional newspapers, there also has been found to be some distrust among readers. According to a study by Wakefield and Elliott (2003), readers often believed there was bias in the reporting associated with community newspapers. In the same

study, respondents were reported to indicate informal communication, face-to-face communication or word of mouth as the most reliable source of information (Wakefield & Elliott, 2003).

Community radio stations

Community radio stations are stations that operate on a small scale. The staff is local and the content is local. Community radio station staff members were found to take extra care in ensuring their station and themselves were seen as clean, upstanding members of the community. They also were reported to take steps to make listeners feel good and important. Airtime is spent on publicizing local news, sports and events, as well as playing music (Fourie, 2006, p. 438).

Community websites

In addition to these local media venues, communities also had websites devoted to informing residents of vital information. With the rise of the dot com/digital age, community websites have become important links between residents and local government, businesses and other areas of interests. As the Internet became user-friendly, websites were created by a host of different businesses, individuals and organizations to help them get their messages to the public. The Internet provided a platform which people used to bring together different forms of media to aid in the task of communication (Druckman, Kifer & Parkin, 2007). According to the authors, these different media forms have proven valuable in attracting the public's attention and trust: dynamic visuals, such as videos, audio, and interactive material such as chat rooms, forums, and two-way communication (Druckman et al., 2007). Usability of a website is found to lead to trust and had the greatest positive influence on user satisfaction which, in turn, leads to website loyalty (Flavian, Guinaliu & Gurrea, 2006). Usability is based on:

1. Users being able to easily understand the system, its functions, interface and contents.
2. Website is simple to use.
3. Users quickly find what they are looking for.
4. Site is easy to navigate.
5. Users control what they were doing (Flavian et al., 2006).

The Internet also is said to lead to more civic interaction because it allows more participation in community affairs and helps community residents become aware of events and other matters related to their communities (Uslaner 2004).

Effects of the Internet on mainstream media and the public

The rise of the Internet has led some to predict the fall of mainstream media as it was known prior to the 1990s when the Internet became common in households across the world. Instead of operating just a newspaper, radio station or television station, new media led to economic convergence or the “consolidation of media outlets by conglomerates” (Cooke, 2005, p. 24). This convergence was necessary because media outlets were tied by economic, political and social parameters of their existence. Fidler (1997) contends that media outlets must constantly “evolve and adapt” in response to the emergence of new media or else, they will die (p. 23). This was seen in the 1980s when newspaper publishers became owners of radio stations so their newspaper business could stay afloat in the changing media environment. A more recent example of this is when Time Warner bought America Online (AOL) in 2000 (Cooke, 2005). In today’s world of technology, the type of convergence that is more often occurring is technology/production convergence. This type of convergence typically refers to the merging of two or more media technologies, or the sharing of information through digitization (Cooke,

2005). In the news media, digital technology allows for editing and formatting information from a single content source to be used by multiple media outlets. The convergence of media outlets, technologies, and processes creates what is called a “unique cultural/visual environment” where designs distinctive of one medium can easily be used by other media (Cooke, 2005, p. 25).

Cooke said this is significant because a single communication style is no longer associated with just one medium. For instance, the pictorial mode of communication once associated with just television now appears in information graphics on the front pages of newspapers and in the “thumbnail-sized icons” on news websites (Cooke, 2005, p. 25). Likewise, the ticker-tape delivery style that was made popular by news websites is now a standard feature of many cable news programs (Cooke, 2005). The ticker-tape delivery style Cooke referred to is the text that scrolls across the bottom of television screens, or streaming media, used to report breaking news.

While the “look and feel” of traditional media may have changed, the content has not. According to a study by Seelig (2008), the Internet has made a difference in the format and visual design of newspapers, television, and radio in the traditional sense, but it hasn’t changed the content presented on traditional media websites. Seelig’s study shows that, overall, most media have increased the volume of news-related content on their websites (2008). Web newspapers afford the greatest range of news-related content and more interactive features. People building these sites also appear to be more cognizant of the creation, selection, and organization of information posted on the websites (Seelig, 2008). The study also finds streaming media, along with audio clips, and visual clips, were slowly increasing on television and radio websites, while newspapers were lagging behind in adopting this method. Seelig’s study also finds media websites designed with an organized content and menu structure that supported fast search and retrieval, easy downloading of files, minimal graphics to speed

download times, and an index list of links (2008). In addition, Seelig's report finds news websites "...easily identifiable, and includes common Internet visual conventions and signposts that mostly avoids gimmicks and flashy elements" (Seelig, 2008, p. 97).

Community

A community is comprised of people who live in a geographic area, people who are part of a virtual community, and people who share the same interests. Because community media covers a wide range of communities, this study focused on communities of people who share the same interests, specifically Louisiana agricultural producers. Communities of people with a common interest are called Communities of Practice, or CoPs. It is by being a member of a CoP, people are exposed to knowledge transfers that help them improve their knowledge of an area of their life. Successful knowledge transfers are found to be associated with the extent to which all parties share similar knowledge and the amount of interaction between the source and the recipient(s), and participation in a process by which the source's knowledge is made accessible to the recipient(s) (Cummings & Teng, 2003).

Communities of Practice. The idea of Communities of Practice was developed by Lave and Wenger as the basis for a social theory of learning (Lave & Wenger, 1991; Wenger, 2000). According to Wenger (2011), "Communities of Practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (p. 1). Wenger explained that a CoP is not just "a club of friends," or a group of people who have network connections, but a CoP is defined by a "shared domain of interest" (Wenger, 2011, p. 1). The community is formed when members engage in joint activities and discussions, help one another, and share information. He said people in a CoP build relationships that enable them to learn from one another. The practice came by community members practicing what they learn. These community members build a repertoire of resources:

experiences, stories, tools, or ways of addressing recurring problems or issues (Wenger, 2011). This practice is developed by the members who practice a variety of activities. Other names for Communities of Practice include learning networks, thematic groups, or tech clubs. The idea of Communities of Practice is said to be used in: organizations, government, education, associations, the social sector, international development, and on the web (Wenger, 2011).

According to Eckert (2006), two conditions are needed to justify a community being called a community of practice. These are: shared experiences over time, and a commitment to shared understanding (Eckert, 2006, p. 1). “Communities of practice emerge in response to common interest or position, and play an important role in forming their members’ participation in, and orientation to, the world around them” (Eckert, 2006, p. 3). Based on this information of a Community of Practice, Louisiana agricultural producers constitute a Community of Practice.

Culture

According to Fischer (2009), “Culture is often seen as a shared meaning system” (p. 25). Just as a community of people, a culture of people can be found living in a geographic location, as well as in people who share a virtual community online. It is how people communicate with each other that allows them to share a culture. Hall (1959) said, “Culture is communication and communication is culture” (p. 169).

Communication involves listening, as well as talking (Servaes & Malikhao, 2005). It also involves access and participation. This type of participation can be found in community radio stations, or community newspapers, that are self-managed by those participating in it (Servaes & Malikhao, 2005). This means, for the most part, that the owners have control over what information is made available from their medium. As Jankowski (2002) notes, there are fewer regulations in a community-owned media outlet than in a larger, corporate-owned medium. Servaes and Malikhao (2005) said the freedom experienced in community-owned

media could help bring about social change by establishing participatory communication policies. They also said, "...participatory communication for social change sees people as the nucleus of development. Development is lifting up the spirits of a local community to take pride in its own culture, intellect and environment. Development aims to educate and stimulate people to be active in self and communal improvements, while maintaining a balanced ecology" (Servaes & Malikhao, 2005, p. 98).

Communicating across cultures

The title for this section is also the title for Part II of the book, Guide to Cross-Cultural Communication by Reynolds and Valentine (2006). The first part of the book addresses how to understand cultures. In Part II of the book, the authors discuss how to effectively use language, how to successfully write documents, how to verbally communicate with sensitivity to non-verbal elements, how to build credibility and persuasively negotiate with others, as well as how to navigate international legal structures. The authors offer these guidelines when communicating verbally:

- Choose words carefully.
- Use simple, specific, concrete words.
- Use the most common meaning for words.
- Do not use slang, or jargon.
- Respect the basic rules of correct grammar and standard syntax.
- Do not tell jokes.
- Meet your communication partner halfway.
- Be empathetic and patient.

- Use graphs, charts, tables, and written summary, in addition to speaking, for clarity.
- Listen.
- Be silent when needed to be (Reynolds & Valentine, 2006).

While these guidelines from Reynolds and Valentine (2006) were written to explain how to communicate with non-English-speaking cultures, many of their suggestions also could be used when communicating with people from all cultures – English-speaking as well as non-English-speaking people.

In addition to communicating verbally, the authors said it is also important to learn how to effectively communicate nonverbally. Reynolds and Valentine (2006) said it is important to learn a culture's preference regarding: eye contact, facial expressions, hand gestures, use of physical space, and silence and the rhythm of language. For instance, some cultures encourage direct eye contact, while others may not. Facial expressions can be read as interested, or not interested, and so on. Know what is preferred in a culture before attempting to make contact (Reynolds & Valentine, 2006).

People who follow these guidelines should have a smooth encounter with people from other cultures, but DuPraw and Axner (1997) said it also is important to remember some communication challenges may arise. The authors address what they call, "Six Fundamental Patterns of Cultural Differences" in the article, "Working on Common Cross-Cultural Communication Challenges." The six patterns addressed in the article are:

- Different Communication Styles. As already mentioned, it is important to remember some words and phrases may be used in different ways in some cultures. It is also important to pay attention to nonverbal communication.

- Different Attitudes towards Conflict. Some cultures view conflict as a positive while others view it as something to be avoided.
- Different Approaches to Completing Tasks. From culture to culture, people use different methods for completing tasks. People may have different notions of time and varied ideas about how relationship-building and task-oriented should go together.
- Different Decision-Making Styles. The roles individuals play in decision-making vary from culture-to-culture. Be aware that individuals' expectations about their own roles in shaping decisions may be influenced by their cultural frame of reference.
- Different Attitudes towards Disclosure. In some cultures, it is not appropriate to be casual about emotions, about the reasons behind a conflict or a misunderstanding, or about personal information. When dealing with a conflict, be aware that people may differ in what they feel comfortable revealing.
- Different Approaches to Knowing. Notable differences occur among cultural groups when it comes to epistemologies -- that is, the ways people come to know things. Asian cultures' epistemologies tend to emphasize the validity of knowledge gained through striving toward transcendence (DuPraw & Axner, 1997, Six Fundamental Patterns of Cultural Differences section).

Having knowledge of other cultures could prove valuable as, according to the National Center for Farmworker Health (2012), more than three million migrant and seasonal farmworkers are estimated to be in the United States (p. 1). In its Farmworker Health Factsheet:

Demographics, the NCFH quote statistics from the National Agricultural Workers Survey (NAWS), from 2007-2009, which show 72% of all farmworkers in the United States are foreign born. Of all the farmworkers, 35% were reported to not speak English “at all,” while 27% said they could speak English “a little,” with 8% saying they could speak English “somewhat.” A total of 30% said they could speak English “well” (p. 1). Because of a potential language communication barrier, it is important for producers and agricultural media sources to be able to effectively communicate with migrant workers so that Louisiana agriculture can flourish.

Communication effectiveness

The communication effectiveness of an organization is based on how well its members can adapt to changing communication requirements. The traditional model of communication (Figure 1) includes a source, or sender of a message; the medium, means by which the message was carried; and the receiver, person who received the message. In this communication process, a message is selected and encoded so that the sender transfers the meaning to the receiver. Communication behavior is divided into high- and low-context communication. In low-context communication, information is shared by using words. In high-context communication, information is shared using visuals, symbols, and the associations attached to them. Because high-context communication is not easily understood by members outside of an association, a low-context communication style is preferred when communicating with the general public (Global Marketing and Advertising, 2009).

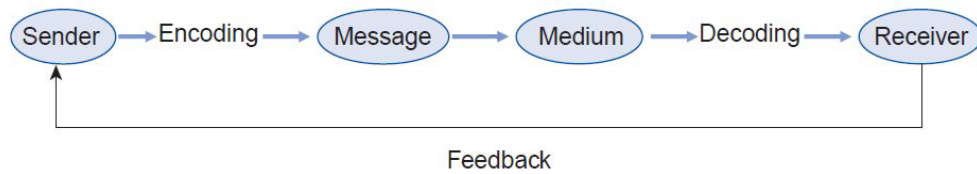


Figure 1: Classic Model of Communication

In addition to knowing what style of communication is preferred by the public, it also is important organizations understand what type of media format different communities prefer to receive their communications in. According to Fulk and Boyd (1991), understanding media choices can help an organization in designing information and communication technologies. The authors referred to the Media Richness Model of media choice in organizations to explain individual information-processing and communication media. In explaining this model, the authors list four criteria they said defines relative media richness. These criteria are:

- Speed of feedback,
- Variety of communication channels used,
- Personality of source, and
- Richness of language used.

Face-to-face was found to be the richest communication medium, followed by telephone, and written documents in the early 1990s, the authors noted. However, the Internet seemed to be changing how people preferred to get their information.

A 2003 study by Tewksbury found new technologies were changing the nature of news reading and information gathering. According to Tewksbury (2003), the interactive nature of the Internet allowed people to efficiently select information that interested them. In 2000, it was found that people used online resources to supplement, not replace, their information gathering resources (Althaus & Tewksbury, 2000). Readers of local newspaper sites usually subscribed to

the print versions as well. A 2004 study shows, communication leaders indicated newspapers was the best form of communication to use to get information about agricultural issues (Ruth & Lundy, 2004). Other forms of communication listed in the study are television, government agencies and radio. A 2005 study of leaders of the Florida Farm Bureau found that, while they were positive about using new communication technologies, the leaders still believed communicating with people face-to-face and by telephone were best (Telg, Basford & Irani, 2005). Just as the Florida Farm Bureau study showed, a study by Hall and Rhoades (2009) showed American farmers preferred face-to-face communication over online communication.

Since the Althaus and Tewksbury study in 2000, the Internet population has grown substantially. A recent study of the Internet by the Pew Research Center found that, on a typical day, 59% of online adults used search engines to find information on the Web (Pew, 2012). The study also found that, on a typical day, 59% of the online adults sent or received e-mail.

Agricultural producers use of the Internet as community media

As stated previously, Internet usage has become almost habitual for some people. Some information gathered from the Internet is retrieved by people using user-generated media (UGM). In 2007, it was reported that 51% of adult American consumers watched and/or read content created by others on the Internet (August, Kern, & Moran, 2007). The speed at which reliable information was obtained and/or shared via the Internet made this medium a cost-effective way for consumers to get material they need in their everyday lives (Henroid Jr., Ellis & Huss, 2004). Because the Internet allows for information to be readily available to a vast number of people, and the Internet is open for anyone to post information, it is important people understand how to recognize credible information. Pan and Chiou (2011) noted consumers should always seek clues for trustworthiness of online information. The authors encouraged

consumers to visit Social Network Sites, or forums, with information pertaining to the website(s) for which the consumers were interested. By visiting such sites, the authors said consumers could check for clues for perceived trustworthiness of consumer-generated online information. According to their study, the authors said consumers should look for "...perceived strong vs. weak social relationships among 'net pals' and positive vs. negative messages" (Pan & Chiou, 2011, pp. 68-69). "Perceived social relationships among net pals" referred to the relationships information providers had with their net pals (Pan & Chiou, 2011, p. 69). According to the authors, it normally takes a long time and a lot of effort for people to establish online friends and maintain a reliable and credible image with other people in the forum. Therefore, the social relationship among people could cue the person seeking information on whether or not information posted on the website could be trusted. Also, by visiting such forums, consumers could judge if positive, as well as negative messages posted could be trusted based on the perceived social relationships people posting the messages have with the other people in the same forum. Their study found that:

- Positive and negative effects of statements on information trust were different depending on if relationship among users was strong or weak.
- Online information seekers were thought to have a strong social relationship with one another, so the information seeker's trust level did not differ depending on whether the information was positive or negative.
- If an online information-poster was thought to have a weak social relationship with another poster, the information-seeker's trust level in negative statements was greater than positive statements (Pan & Chiou, 2011, 69).

Pan and Chiou aren't the only authors who found the ties between online friends and online information was strong. A study by Beldad, Delong and Steehouder (2010) shows that the success of an online website depends on the "subjective benefits" it gives consumers, as well as the trust users have for information posted on the site, the technology used for service delivery, and "the party behind the service" (Beldad et al., 2010, p. 867). Of all the factors given for success of information sharing between cultures, trust is perhaps one of the greatest factors found in studies involving cultures and trust. Bornhorst, Ichino, Kirchkam, Schlag, and Winter (2010) said trust and trustworthiness played a crucial role in the development of interactions between individuals. While trust may not have existed in the beginning, the study found it increased and evolved over time with interaction; thus, the authors were led to believe trust bred trust and allowed people where to look to find trustworthiness (Bornhorst et al., 2010).

History of the Internet

While many people may believe the Internet has always been a part of the global society, it had really only been in the public sector for about 50 years at the time of this writing. According to Leiner et al. (2009), a history of the Internet shows the idea of a system that could connect people with other people and information virtually was first recorded in 1962 when J.C.R. Licklider of MIT discussed his "Galactic Network" in a series of memos he wrote about his vision of a globally interconnected set of computers through which the public could quickly access data and other programs from anywhere (2009). Licklider's concept of a "Galactic Network" was very much like today's Internet (Leiner et al., 2009). The idea of connecting computers grew and, by the end of 1969, four host computers were connected to form the initial

Advanced Research Projects Agency Network (ARPANET), and the Internet was begun (Leiner et al., 2009). Licklider's idea continued to grow and, in the 1980s, Local Area Networks (LANs), Personal Computers (PCs) and workstations became widespread, allowing the Internet to flourish. By 1985, the Internet was a well-established technology supported by a broad community of researchers and developers. In addition, the Internet was beginning to be used by other communities for daily computer communications and electronic mail (e-mail) was gaining popularity (Leiner et al., 2009). In 1988, a National Research Council committee produced a report titled, "Towards a National Research Network." This report was influential in laying the foundation for the future information superhighway (Leiner et al., 2009). The idea continued to grow and the Internet became a mainstay in many homes and businesses across the globe. Many people, including members of the agricultural community, have learned how the Internet can help them get the information they need quickly and efficiently. Internet resources used by agricultural producers included: blogging, social network sites, video sharing sites and podcasts (Rhoades & Aue, 2010).

Blogging

Blogging, as it was known at the time of this writing, began around 1996 (Blood, 2000). It involved posting items on a webpage in reverse chronological order. A study by Nardi, Schiano, Gumbrecht, and Swartz (2004), shows several reasons why people blog including: documenting their lives, blogging as a commentary, blogging as catharsis, blogging as muse, and blogging as part of a community forum. Study participants who blogged as part of a community forum, included two participants who blogged to support educational communities (Nardi et al., 2004). Blogging was found to be a valuable E-learning tool. Students became involved in research activities, engaged in discussions with practitioners and led through developmental concepts of the discipline's knowledge domain (Glogoff, 2005).

Social networks

Social networks are defined as web-based services that allow individuals to:

1. Create a public or semi-public profile within a private system,
2. Maintain a list of other users with whom they shared a connection, and
3. View other members' lists of connections (Boyd & Ellison, 2008, p. 211).

By joining a social network, people can communicate with new people who share their same interests, or they can communicate with people they already knew. People create “profiles” online to help them determine who they may want to communicate with. An online profile consists of a series of questions, which typically include descriptors such as age, location, and interests. There is also an “About Me” section where users type in their own personal information. While many Social Network sites are designed to be widely accessible, many sites attract like populations, so it is not uncommon to “find groups using (Social Network) sites to segregate themselves by nationality, age, educational level, or other factors that typically segment society...” (Boyd & Ellison, 2008, p. 214).

The use of social network sites by people living in farming (rural) communities has been found to differentiate from that of people living in urban communities. A study by Gilbert, Karahalois, and Sandvig (2008), finds that people living in rural areas, who use social networks, articulate fewer friends and those friends located in the same close geographical area. The study finds rural users live, on average, 88.8 miles from their friends, while urban users live an average of 201.7 miles from their friends. According to the authors, people living in rural areas find it difficult to establish trust with people living in distant areas. “Most rural people only befriend other rural people” (p. 1610). The authors also note that most rural users do not use social networks to find friends; but, find friends offline and, then, move these friendships online (Gilbert et al., 2008). To compensate for this, the authors suggested social media designers find

ways to build systems that enable incremental trust and provide rural users with access to a greater diversity of people online (Gilbert et al., 2008).

Video sharing sites and podcasts

A third resource producers can use from the Internet include videos and/or Podcasts. Fannin (2006) notes rural markets have been left without agricultural news because of the decline of farm radio and other media. Because it bypasses traditional radio and media outlets to reach agricultural producers and general consumers, podcasting could help fill the void left because of the decline of farm radio. Viewing videos and listening to podcasts are found to be effective educational sources. A study by Kay (2012) shows learning is the number one reason participants use video podcasts. The participants said the podcasts helped them achieve a better understanding of the subject. Control over learning was another reason given for the advantages of using video podcasts. The participants said they liked the freedom of being able to access the podcasts whenever they wanted to in order to learn about something. They liked the fact that they weren't confined to a certain time, date, or place in which they were expected to learn the material. In addition, learning by watching videos is an example of learning by Bandura's Social Learning Theory. In this theory, Bandura (1971) said that people learn by watching others, either in person or through some type of medium. Some mediums are better for this than others. According to Bandura (1971), video-based, observational, learning is successful because it holds the attention of people of all ages for extended periods. Because their attention is captured, viewers learn the depicted behavior even when they are not given extra incentives to do so (Bandura, 1971). In addition to easily capturing viewers' attention, Bandura said observational learning also is successful because seeing something allows people to "memory code" what has been observed, which enables them to remember it longer. "Observational learning and retention

were facilitated by such codes because they carry a great deal of information in an easily stored form” (Bandura, 1971, p. 7).

The main disadvantage to utilizing videos and/or podcasts is that it requires a lot of bandwidth, or “...the amount of data that can be carried from one point to another within a given period of time,” (Rouse, 2010), which hasn’t been made available in many rural areas. A study by Horrigan, in 2009, shows 46% of American adults living in rural areas had home high-speed Internet usage. This was up from 38% in 2008. To help citizens living in rural areas download and/or view files requiring a high bandwidth, the United States Department of Agriculture (USDA) has implemented a program designed to improve Internet access and other utilities in rural America. The USDA Rural Development program provided for new or better access to broadband Internet for about 64,000 residents living in rural areas in 2012 (USDA, 2013).

While lack of broadband access may have been the reason some agricultural producers have been found not to use the Internet, it may not be the only reason. Lack of knowledge of how to use the Internet by producers is an issue addressed in a study by Mishra and Park (2005). The Mishra and Park study shows producers can benefit from using the Internet to receive information related to their products, if producers are properly educated in how to use this tool. According to the authors, a large number of Internet applications intended for use by agricultural producers, are associated with more educated and producers who have larger operations. The authors said that if the benefits of the Internet were to be used by more agricultural producers, more education is needed to enhance the computer knowledge of less-educated producers. In addition, Mishra and Park also said more emphasis may need to be directed at producers of smaller operations in other groups, such as producers who were beginning to farm, producers who would like to learn more about and become more proficient in examining marketing data

and trends for commodities, or households that might not be operating a large farm and might be more interested in nonfarm activities including the tracking of off-farm investments (Mishra & Park, 2005).

Improving on-farm technology could be an asset worldwide. A study by Warren (2004) of agricultural producers in the United Kingdom shows United Kingdom producers also could benefit from having better access to the Internet. According to findings in the study, 53% of producers in the United Kingdom had access to the Internet. One of the reasons for the low Internet connectivity was the lack of suitable on-farm hardware, as many of the computers found on farms were old and outdated, and the cost of providing infrastructure to support Internet systems was too costly (Warren, 2004). Low education attainment is another reason Warren noted for producers in the United Kingdom not adopting the use of technology. Just as is the case in America, Warren said he believed Internet usage would increase if producers were more educated in how to use these technologies (2004). He also said it was important for producers to learn how to use the Internet in the event it becomes a “default medium for knowledge transfer, commerce, etc...” (Warren, 2004, p. 380).

Finally, age was listed as a possible factor in agricultural producers’ use of the Internet. According to the Pew Internet and American Life Project, 85% of American adults, ages 18 and older, reported to use the Internet (Pew, 2013). The study involved 2,252 adults and showed this breakdown (Table 1) in age related to Internet use.

Table 1: Internet Use Based on Age According to the Pew Research Center's Pew Internet and American Life Project

<u>Age</u>	<u>Internet Use</u>
18-29	98%
30-49	92%
50-64	83%
65+	56%

Collaborating over the Internet

Use of the Internet as a communication tool is very common in today’s society. According to Mangstl (2008) “knowledge exchange today is like it has never been before” (p. 5).

Because of this, he said Information and Communication Technologies (ICT) should be a “...key agent for changing peoples’ lives by improving access to information and sharing of knowledge” (p. 5). But, this will not happen until the Digital Divide was narrowed. The interaction between ICT and agriculture is what has become known as e-Agriculture, which is defined as a way to enhance sustainable agriculture and food security through improved “processes for knowledge access and exchange using information and communication technologies” (Mangstl, 2008, p. 5). ICT allows rural communities to mix traditional communication channels with new ones to disseminate agricultural information. For e-Agriculture to really have an impact, Mangstl said policy makers would need to make some commitments, which include:

- Making an investment in communication infrastructure,
- Making a commitment to transform the existing information flows from producer to user so that communities and institutions can develop networks for sharing information and knowledge, and
- Making a commitment to provide incentives for sharing information (Mangstl, 2008).

He added that only if the above commitments were met, could the benefits of e-Agriculture be recognized.

Information sharing, one of the benefits of e-Agriculture, is one of the issues addressed in the article, *Accessing, sharing and communicating agricultural information for development: emerging trends and issues*. In this article, Ballantyne (2009) refers to information, knowledge and communication as “fertilizers for research” (p. 260). He argues that, just as fertilizer is needed for plant growth; information, knowledge, and communication are needed for the dissemination of agricultural information. He also said that inclusive, participatory approaches to knowledge sharing among experts are needed. The Consultative Group for International Agricultural Research (CGIAR) suggested everyone in the Research and Development (R&D)

process of agriculture be able to communicate with one another, as well as have equal access to a shared knowledge base. Ballantyne (2009) said it is not sufficient for researchers at research institutions to access just each other's resources but, that they should be able to "tap" into many other information sources, including information obtained from producers, and find ways to document and provide access to this information. "Different, collaborative, and interactive forms of sharing and exchange were needed," he said (Ballantyne, 2009, p. 262). He noted different types of communicators including communicators who would be skilled at "tapping into and supporting collaborative activities and interactive processes involving different types of stakeholders, and help people harvest and share different kinds of knowledge," would most likely be needed for this task (Ballantyne, 2009, p. 262).

In Computer mediated communication theories and phenomena: Factors that influence collaboration over the Internet, Bubas (2001) writes that "misunderstanding and cultural differences" were two factors that contributed to potential frustration for people using the Internet to engage in collaborative work (p. 8). In order to effectively collaborate with people of a different culture, it is important for the message to be clear and in a language that is understood by all. In addition, interlinking can increase understanding of a concept or issue. According to Auer and Lehmann (2010), interlinking can add information that can increase the usefulness of a knowledge base by combining information and/or data. Linking data, or information, defines relations and allowed the convenient aggregation of data by following these links (Auer & Lehmann, 2010). Interlinking could help supplement the knowledge gained.

Cooperative Extension Service and cross-cultural communication

Relaying messages to people of other cultures is something Cooperative Extension Service agents across the United States are faced with every day when they interact with people from other cultures. Hassel said this interaction is called "cross-cultural engagement" (Hassel,

2005). Cross-cultural engagement “...suggested active learning while crossing in to another culture.” (Wake Forest University, 2013). It requires a two-way process of communicating.

According to Hassel, cross-cultural engagement has the following characteristics:

- It is community-based, led, and owned.
- Its mission and purpose are consistent with those of land-grant universities.
- It utilizes participatory qualitative action research.
- It utilizes subject matter expertise that lay beyond science.
- It utilizes discovery, learning, and engagement (Hassel, 2005).

Hassel said Cooperative Extension Service agents should learn about and practice cross-cultural engagement so that they can better recognize and understand the knowledge that stakeholders bring to the table. Cross-cultural engagement would help agents understand and appreciate different world orientations. Some benefits of cross-cultural engagement Hassel listed are:

- It builds long-term, working relationships with local communities,
- It includes alternative perspectives, ideas, and understandings for social problems,
- It stimulates innovation and discovery, and
- Cultural diversity is important at land-grant research universities” (Hassel, 2005).

Cross-cultural engagement does not come without challenges, he warned. Challenges listed by Hassel are:

- Navigating scientific perspectives that tend to exclude diverse ways of knowing.
- Navigating taboos within academic culture around include knowledge originating beyond the “research base.”
- Recognizing and involving community-based subject matter experts without relying upon academic credentials or scientific validation.

- Yielding programmatic leadership and decision-making authority to community-based experts and stakeholders (Hassel, 2005).

Hassel gives these suggestions for agents to successfully facilitate the craft of cross-cultural engagement:

- Be honest in understanding and stating the reasons for engaging in this line of work.
- Be patient and listen carefully.
- Present oneself as a real person, not just a professional.
- Put all agendas on the table. Openness and full disclosure demonstrated over time are respected (Hassel, 2005).

Hassel writes that agents skilled in cross-cultural engagement can bring cultural diversity to land-grant research universities (Hassel, 2005). Effective cross-cultural engagement can help Cooperative Extension Service agents learn what information their audiences require and what form of community media would best be used to relay this information. This helps create effective cross-cultural communication.

Lawrence (2007) developed two conceptual models for generating cross-cultural engagement. The first model, “Framework for Cross-Cultural Engagement,” looks at Australia as a “multicultural environment encompassing a multiplicity of cultures, each with its own language and cultural practices” (Lawrence, 2007, p. 1). The model identifies and describes specific practices needed for people of different cultures to communicate. The second model, “Model for Cross-Cultural Practices” gives three strategies to use in order to help achieve this communication. These strategies are: reflective practice, socio-cultural practice and critical

practice. According to Lawrence, these two models, when used together, “provide a means of better understanding and communicating with different cultural groups” (Lawrence, 2007).

The Framework for Cross-Cultural Engagement (Figure 2) illustrates the processes involved in cross-cultural engagement. Lawrence stated this framework is process-oriented and; therefore, is applicable to “traditional indigenous cultural context, specific cultural practices in relation to a collective value orientation.” For example: naming, spiritual, and grieving practices, as well as nonverbal communication and differences in relation to the use of time, silence, and space” are some acts that may have different meaning in different cultures (Lawrence, 2007, p. 7). Lawrence also stated orientations to power, prestige, and status can also be identified as addressed differently in different cultures. She said these differences exist in the most basic acts which include: eating with chop sticks, or knives and forks and spoons; blowing noses while in public; using hand, water or paper when toileting; expressing pain openly; or looking directly or indirectly at people when talking to them. She also indicated another complexity that exists when people of one culture communication with people of another culture is they may do so from the “viewpoint/worldview” of their own culture (Lawrence, 2007, p. 9). In addition, Lawrence said cross-cultural engagement involves “making choices” (Lawrence, 2007, p. 9). One choice is for people to assume their culture is the correct culture and anyone who did not follow their cultural practices is “lacking.” The other choice she listed is as she calls

it, “the more culturally aware choice” (Lawrence, 2007, p. 10). This choice involves accepting the ways of different cultures.

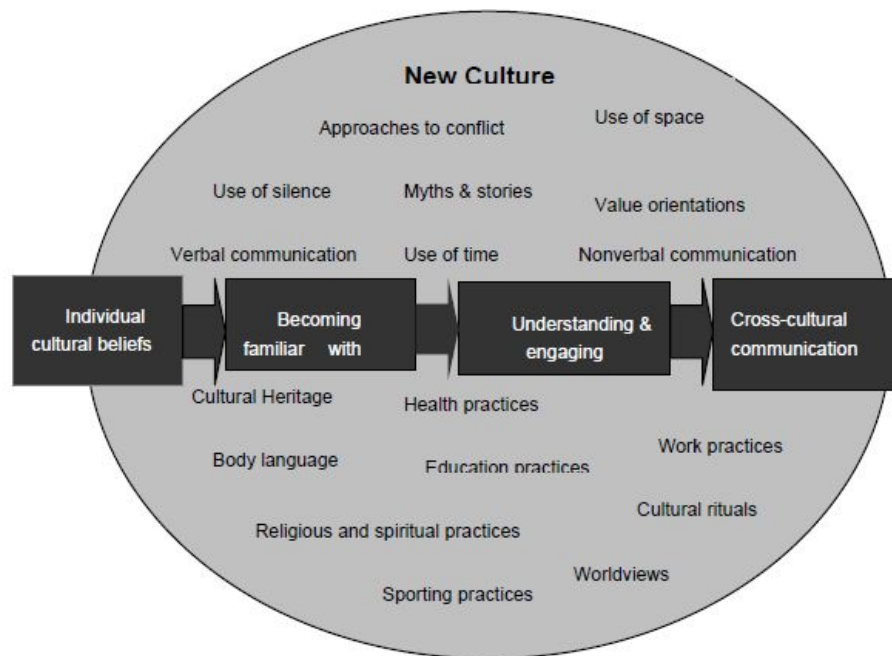


Figure 2: Lawrence's Framework for Cross-Cultural Engagement

The second model Lawrence referred to is The Model for Cross-Cultural Practices (Figure 3). This model incorporates reflective practice, socio-cultural practice, and critical practice to explain the inter-relationships that exists between them. The successful use of one of these practices depends on the use of another, and when implemented together, they are more effective in facilitating cross-cultural engagement. According to Lawrence, reflective practice involves watching and listening to the literacy's/cultural practices of a new culture. Socio-cultural practice involves the cultural practices of seeking help and information, participating in groups, making social contact, seeking and offering feedback, expressing disagreement and refusing a request (Lawrence, 2007). And, critical practice involves people's capabilities for a

self-awareness of their own belief systems and cultural practices (critical self-awareness), as well as their capabilities for language/power critique (Lawrence, 2007).

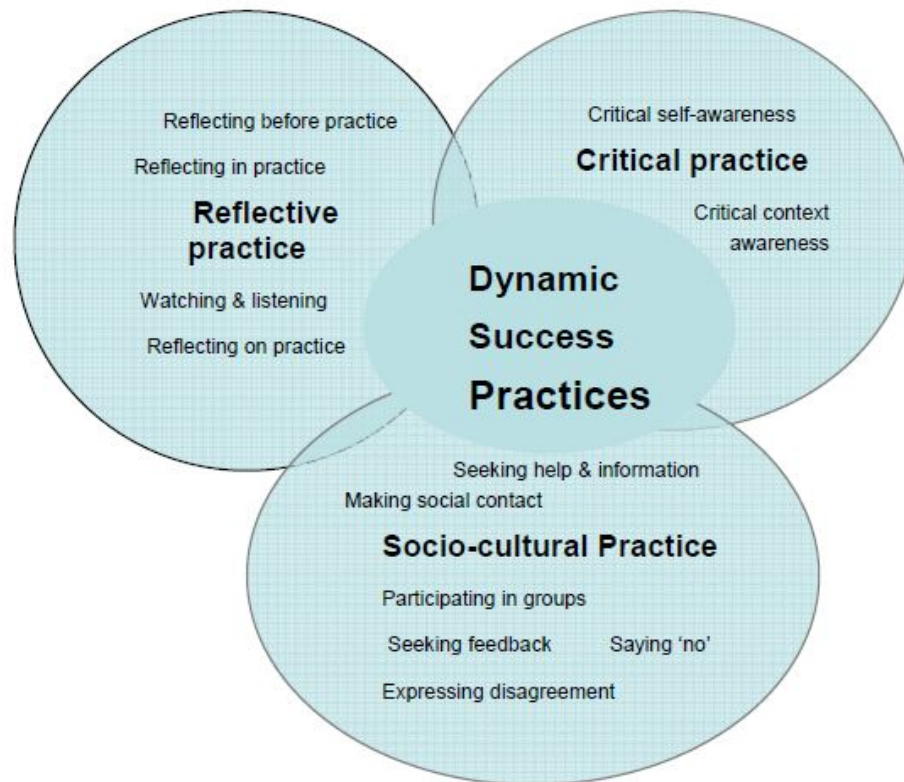


Figure 3: Lawrence's Model for Cross-Cultural Practices

According to Lawrence, this framework and this model offer a means of "...better understanding, engaging and respecting cultural diversity" when used together (Lawrence, 2007, p. 18).

Research addressing potential explanatory or independent variables

The primary variable of interest in this study was if members of Louisiana agricultural producer communities used community media to get information. The second variable was the method these communities used to get their information. Several variables were found in the research literature found that people were more comfortable with

information provided by people from in their own geographic locations and; therefore, any materials created for a certain community should be in a language the community understands, as well as referenced by leaders of, or other people in the community. The diagram in Figure 4 shows a breakdown of potential Explanatory and Independent variables. The top variable is the Independent Variable and the variables branching off from it are Explanatory Variables and, then, Dependent Variables. The population chosen for the study will be Louisiana agricultural producers.

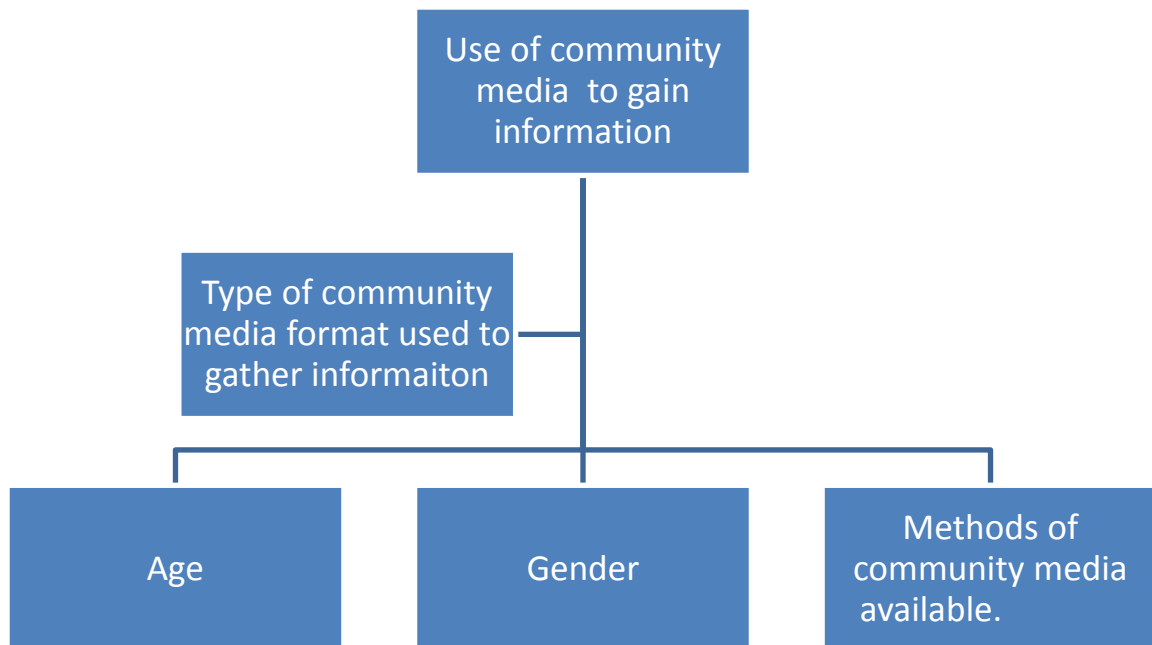


Figure 4: Explanatory and Independent Variables for this Study

Deficiencies/limitations in literature

While sociologists have studied the concept of communities for well over a century (Nisbet, 1966), the idea of community media is broad and continued to broaden as more avenues in which to distribute community media become available. This has led to a need for the ability to distinguish between legitimate and non-legitimate information available from the Internet so

that people could be assured they are getting the type of information they wanted and/or needed. There appears to be a gap in both research conducted and scholarly articles published in the area of providing methods to distinguish between formal and non-formal web-based information. The LSU AgCenter's website presence would benefit greatly if Louisiana producers believed they could trust the information provided on the website.

A study similar to this study, conducted by Gautreaux in 2011 of Louisiana agronomic producers, showed Internet usage by Louisiana producers was growing (Gautreaux, 2011). Gautreaux's study indicated Louisiana agronomic producers, as well as crop consultants frequently used the Internet to gain information related to agronomic crop production. Because of the popularity of using the Internet to gather agriculture-related information, Gautreaux noted it was important the AgCenter's website be "...well-maintained and have the most current information in order to best serve the users of the site" (Gautreaux, 2011, p. 149).

In addition, Shanley and Lopez (2009) said a "lack of knowledge exchange between (academia) and both the general public and key decision-makers..." existed because of institutional incentive structures and individual reward systems in research and academia (Shanley & Lopez, 2009, p. 535). Jacobson, Butterill and Goering (2004) stated this knowledge exchange deficit is the result of the belief in many disciplines that the activities that knowledge transfer involve — "outreach, building partnerships with non-academic organizations, and plain language communication — were not widely accepted as legitimate forms of scholarship" (Jacobson et al., 2004, p. 248). The authors acknowledged that changes to the criteria used in promotion and tenure decisions should be made in order to produce the most immediate effect in the knowledge transfer area, but focusing only on promotion and tenure guidelines may turn knowledge transfer into a matter of individual-level motivation rather than organizational-level

commitment (Jacobson et al., 2004). The authors called for more investigation of the factors that promoted or impeded engagement of knowledge transfer. They called for “...qualitative, exploratory research to develop a more complete typology of organizational factors that influenced engagement in knowledge transfer and to understand the mechanics of how these factors affected individual decisions and choices” (Jacobson et al., 2004, p. 256). They also said qualitative evaluations were needed to determine the extent to which any changes made actually improved the quantity and quality of university-based researchers’ knowledge transfer efforts (Jacobson et al., 2004).

Theoretical/conceptual framework for the study

A mixed-methods approach was used in collecting and interpreting data for this study. Both quantitative and qualitative data were collected. A framework similar to Carroll’s and Rothe’s Framework of Complementarity (2010) was used. This framework is a theory-driven framework which enables researchers to use the data collected in a “conceptually sound and useful manner” (Carroll & Rothe, 2010, p. 3478). By thoroughly understanding data that has been collected, researchers can gain a deeper understanding of what the data means (Carroll & Rothe, 2010). Quantitative data collected from each community studied included:

- Number of members who used community media to obtain information.
- Number of members who used the Internet.
- Use of the LSU AgCenter’s website to obtain information.
- A numeric measurement for the number of times they visited the LSU AgCenter’s website for this information.

The qualitative data was analyzed by looking at how the data answered these questions:

- What patterns/common themes emerged from the data gathered?

- How did these patterns help create an understanding of the broader study question(s)?
- Were there any deviations from these patterns?
 - If, yes, what factors could explain these atypical responses?
- What interesting stories emerged from the data?
 - How could these stories help create an understanding of the broader study question?
- Did any of the patterns/themes suggest additional data needed to be collected?
- Did any of the study questions needed to be revised?
- Did the emerging patterns support the findings of other corresponding qualitative analyses that have been conducted? (Frechtling et al., 1997)

The above questions were used to reach a conclusion of the data based on the Comprehension Level, or Level 2, of Blooms' Taxonomy. This level involved the researcher organizing, comparing, translating and interpreting gathered data so that the researcher could show she or he understood the facts that were gathered (Bloom, 1956).

Data reduction was conducted to ensure only significant data was analyzed to help in determining/gauging how community media was used to help facilitate cross-cultural communication between LSU AgCenter researchers/agents and Louisiana agricultural producers. Any patterns or themes that emerged from the surveys were identified. The qualitative data was analyzed and grouped according to patterns or themes detected. This process was conducted by: content analysis and thematic analysis. The content analysis was done by: coding data for certain words that appear throughout the data, identifying the patterns of such words, and interpreting their meanings. After the data were coded, it was examined to look for patterns.

The thematic analysis was done by grouping the data into themes that helped answer the research question. According to Taylor-Powell and Renner (2009), these themes may be: directly evolved from the research questions and were determined before data collection began, and/or naturally emerged from the data as the study was conducted. Once the themes were identified, the data were grouped into thematic groups so that the meaning of the themes could be analyzed and, if the themes could be analyzed, the corresponding material was connected back to the research question. Once consistent patterns and/or themes were determined, the data were arranged in some sort of display – graphic, table, matrix, etc. – that was used to visually illustrate the study’s outcomes.

After the data were analyzed, a conclusion was made based on:

- An interpretation of what the findings meant,
- A determination of how these findings helped answer the research question, and
- Any implications drawn from the findings.

The data were studied very thoroughly to justify and confirmed any conclusion that was made.

The design of this study also followed Rubin’s and Rubin’s (2005) suggestion for designing a study with “analysis and theory development in mind” (p. 52). Rubin and Rubin stated that, when conducting cultural studies, researchers should begin with “a less formulated idea” (p. 53). In the beginning, they said interviewers should ask questions about the interviewee’s culture. The goal was for the interviewer to design the interview questions so that the answers to the questions help develop an understanding of the culture and its people. The interviews were designed so that they “elicited examples of the concepts and themes that were central to the interviewee’s understanding, and then were followed up with detailed examples”

(p. 53) Doing this allowed the researcher to gather “data needed to draw nuanced conclusions about the content of the culture” (p. 53).

In addition, Rubin and Rubin (2005) said that when designing a study, it was important to determine the type of conclusion that was being sought. When this design was followed, individual interviews were analyzed during the process to determine core concepts and themes that will ultimately help in structuring a theory. After this, researchers needed to determine if any questions/answers need to be followed up on. To help determine which questions needed to be followed up, the researcher(s) needed to determine what type of report needed to be produced and, then, choose the concepts and/or themes that were most relevant to obtain such a report. If concepts were detected, but more information was needed to help the researcher(s) understand what the interviewee meant, the researcher(s) should ask more questions and, then, weave the concepts into themes, or longer statements built from concepts that explained why something happened or what something meant. This exercise could continue during qualitative interviews until the information that was needed was achieved. Rubin and Rubin said that when using this continuous design researchers should keep building on new findings, while gathering evidence for, testing, and changing emerging theories; and modifying questions to test emerging ideas and, then, choose new sites and new interviewees to determine how far a theory can be generalized. This design approach ensured that when data were gathered, research questions were answered and the researcher(s) had sufficient data to produce a “rich and nuanced report” (p. 63). This design also ensures that when a project was completed, the results are on target, convincing, and important. More importantly, the results are “generalizable” (p. 63).

Rubin and Rubin (2005) also indicate that researchers must determine what questions to ask in order to get answers that address the overall concerns of the research problem. Answers

they receive should be complete, clear, and concise. Researchers should have an idea of how much weight would be given to each answer. They should also be aware that any questions asked may lead to new questions that may need to be answered. Any new questions that may arise help give depth and understanding to a study. It is important researchers be open to asking new questions so that they could get additional information they had not originally considered.

The data collection method used in this study was similar to the method explained by metaphysicist Bergson (1911) in his explanation of Bergson's Box -- the idea of looking in and looking at, or looking while moving around, an object. According to Bergson, one way of knowing an object is from the perspective of inside the object. The other way is by looking at it from the outside. In Rothe's framework, this could be extended to investigations of social and individual phenomenon (Northrop, 1947). This study focused on Louisiana agricultural producers to determine how they obtained community-specific information as related to farming.

CHAPTER THREE METHODS

Research design

The primary purpose of this study was to determine Louisiana producers' utilization of information provided by the LSU AgCenter, as well as how community media can be utilized to share information provided by AgCenter specialists to Louisiana agricultural producers. Communication between LSU AgCenter researchers and agents, and Louisiana agricultural producers constituted a sort of knowledge sharing environment. According to Lee and Al-Hawamdeh (2002), knowledge sharing is "...the deliberate act in which knowledge was made reusable through its transfer from one party to another. It is considered one of the main pillars of knowledge management" (Lee & Al-Hawamdeh, 2002, p. 49). Previous research had shown knowledge sharing was important for organizations to be found productive (Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000). For knowledge sharing to take place, the recipient must trust where the knowledge was coming from (deVries, van de Hooff, & deRidder, 2006). In the case of the LSU AgCenter, the recipients are Louisiana agricultural producers/taxpayers, and these recipients must believe information coming from the LSU AgCenter is trustworthy.

This study used a multiple method design, which focused on collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies.

Population and sample

The accessible population for this study was defined as all Louisiana residents who were agricultural producers. To be classified as a Louisiana agricultural producer, each participant must have been an individual who farmed 200 acres or more of any of the following crops: corn, cotton, rice, soybeans, sugarcane, sweet potatoes, and wheat. These included low-sales farms and high-sales farms as defined by the United States Department of Agriculture (USDA). (USDA,

2013). This community was chosen because it is a major population the LSU AgCenter targets for use of the research-based information it provided. The target population was defined as the 1,213 Louisiana agricultural producers who attended the 2013 Louisiana Farm Bureau Federation Convention in New Orleans, as well as those producers who attended three LSU AgCenter field days – July 25, 2013 in St. Landry Parish; July 30, 2013 in Iberia Parish, and Sept. 5, 2013 in Franklin Parish -- and participated in surveys distributed as part of this study.

The target population for this study was adults who were agricultural producers in Louisiana. The accessible population was producers whose email addresses were obtained during the 2012 Louisiana Farm Bureau Conference in New Orleans, Louisiana, and producers who three LSU AgCenter field days – July 25, 2013 in St. Landry Parish; July 30, 2013 in Iberia Parish, and Sept. 5, 2013 in Franklin Parish -- and participated in surveys distributed as part of this study. The researchers obtained 121 email addresses during the Louisiana Farm Bureau Conference. A total of eight email addresses were undeliverable. A total of 113 email addresses were usable, and 40 recipients responded, for a response rate of 35% for the emailed survey.

Ethical considerations and study approval

Prior to collecting data, an application for exemption from institutional oversight was submitted to the LSU Institutional Review Board. The study was granted approval #HE 13-6 (Appendix A).

Instrumentation

An extensive review of literature determined that no existing instrument entirely and satisfactorily demonstrated how Louisiana agricultural producers get information related to their crops. Specifically, this study examined how Louisiana agricultural producers used the Louisiana State University (LSU) AgCenter's website and other media sources so that it could be determined which form of community media could be used to facilitate cross-cultural

communication between LSU AgCenter field and state agents and Louisiana agricultural producers. An instrument was created with 22 questions that were based on Internet usage.

The LSU AgCenter's website was the main source of media addressed in this study. One question involved the role community newspapers had in the Louisiana farming community.

This study had five independent variables: age, gender, parish, race, and use of Internet to gain information.

The LSU AgCenter is divided in to five regions across Louisiana: Northwest Region, Northeast Region, Central Region, Southwest Region and Southeast Region. A map, provided by the LSU AgCenter, of the regions is available in Figure 5.

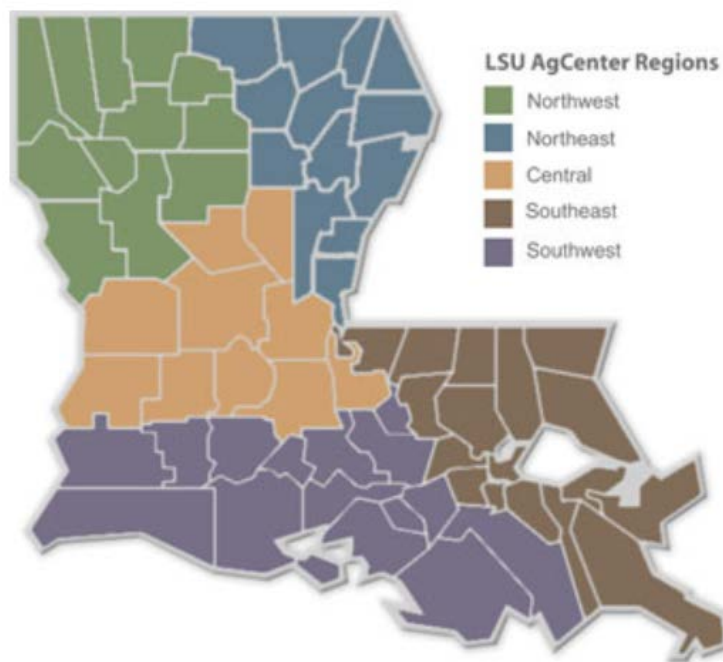


Figure 5: LSU AgCenter Regions

Google Analytics was used to determine how often people accessed the LSU AgCenter's website. In addition to the website, this study also looked at how Louisiana newspapers, with Web addresses, used information disseminated by the LSU AgCenter. Google Analytics was used to gather this information.

Quantitative component

Population sample

The accessible population for this study was defined as anyone who farmed 200 acres or more of any of the following crops: corn, cotton, rice, soybeans, sugarcane, sweet potatoes, and wheat. These included low-sales farms and high-sales farms as defined by the United States Department of Agriculture (USDA). (USDA, 2013). Participants were selected from producers who attended the 2013 Louisiana Farm Bureau Federation Convention and participants who attended LSU AgCenter Field Days: July 25, 2013 in St. Landry Parish; July 30, 2013 in Iberia Parish, and Sept. 5, 2013 in Franklin Parish. These participants were selected because they were Louisiana agricultural producers and they were part of the main audience the LSU AgCenter built its website to attract.

Instrumentation

The survey used to gather quantitative data, Appendix E, was distributed via email from E-mail addresses obtained from producers during the 2013 Louisiana Farm Bureau Federation Convention. The surveys also were distributed in-person to producers attending three LSU AgCenter Field Days: July 25, 2013 in St. Landry Parish; July 30, 2013 in Iberia Parish, and Sept. 5, 2013 in Franklin Parish. Data from the surveys distributed in-person were entered into SPSS Statistics 21, merged with data collected from the surveys distributed via Survey Monkey, and computed for interpretation.

This survey was pilot tested by giving the survey to 100 attendees of the 2012 Louisiana Farm Bureau Federation convention in New Orleans. These participants were asked to take the survey within a 20-minute time frame and note any problems they had with questions and/or answers that appeared in the survey. After they had taken the survey, the participants turned survey back in to this researcher.

Data collection

The survey was administered via an online survey program, Survey Monkey, to 113 producers who provided the researcher with their email addresses during the 2012 Louisiana Farm Bureau Conference in New Orleans, and by a hardcopy survey handed out by the researcher at three LSU AgCenter field days: July 25, 2013 in St. Landry Parish; July 30, 2013 in Iberia Parish, and Sept. 5, 2013 in Franklin Parish. The total number of surveys distributed was 260. A total of 40 (35%) responses were received for the emailed survey and 147 (100%) responses were received from producers who were given the hardcopy survey for a total of 187 responses (72%) for the two surveys combined.

Dillman (2007) states that multiple contacts are needed in order to receive a maximizing response to surveys. For the e-mailed surveys, initial contact was made at the Louisiana Farm Bureau Convention, then, the survey was emailed, followed by two follow-up emails requesting their participation. The following process was used to collect data:

1. Two days prior to administering the survey, an email message was sent advising respondents of the upcoming study and its importance, as well as requesting their participation.
2. The web-based questionnaire was emailed two days after the pre-survey notification. This email message consisted of an electronic cover letter requesting the respondents' participation and providing instructions for completing the survey including the url-link leading to the survey.
3. One week after sending the email with the url-link, all non-respondents were sent a friendly email reminder with an URL-link to the survey.
4. Two weeks following the email reminder, all non-respondents were sent another email, stressing the importance of their participation and a url-link to the survey.

This study used a sampling of Louisiana agricultural producers who lived in Louisiana. An agricultural producer for this study was defined as an individual who farmed 200 acres or more of any of the following crops: corn, cotton, rice, soybeans, sugarcane, sweet potatoes, and wheat. These could include low-sales farms and high-sales farms as defined by the United States Department of Agriculture (USDA). (USDA, 2013). Utilizing this population for the study resulted in a convenience sample being used to obtain the data. “In convenience sampling, researchers (selected) a culture simply because of considerations of convenience” (Van de Vijver & Leung, 1997, p. 27). Two other sampling methods Van de Vijver and Leung indicated could be used were systematic sampling and random sampling (1997). Systematic sampling is a method used when a population is selected in a systematic, theory-guided fashion. Cultures selected for use in this type of method are selected because they represented different values on a theoretical continuum. Random sampling was a measure which involved sampling a large number of cultures randomly. This strategy is preferred for studies in which generalizability is sought. If enough cultures are involved in a study, a random sampling may eventually be approximated. However, because of time constraints and resources, collecting a true random sample of cultures is very difficult (Van de Vijver & Leung, 1997).

The method of sampling to be used is very important when conducting a study. According to Backstrom and Hursh-Cesar (1981), sampling is a “highly technical aspect of survey research,” that may influence the quality of data that is collected (p. 52). In addition, it is important that researchers provide a definition of the population to be studied so that the sample, once it is established, can be said to be scientifically reliable. The definitions provide a need to be clearly stated and should be applied to all participating individuals. Each participant who meets the defined requirements should have a non-zero chance of being selected for the sample.

For this study, these requirements were: an individual who farmed 200 acres or more of any of the following crops: corn, cotton, rice, soybeans, sugarcane, sweet potatoes, and wheat. These could include low-sales farms and high-sales farms as defined by the United States Department of Agriculture (USDA) (USDA, 2013).

In the event any variations in the sampling frame were detected during data collection, these variations were documented and accounted for during the analysis stage of the research so that an accurate analysis was made (Hader & Gabler, 2003). No variations were detected.

Convenience sampling was used in this study because the participants were chosen from a population the LSU AgCenter was already working with. In addition, to the population being easily accessible, the costs incurred with the study were minimal because, according to van de Vivjer and Leung (1997), using a convenience sample costs less. Any generalizability will be associated with members of the community itself. This study was conducted to determine what information members of the Louisiana agricultural community needed. It was not conducted to determine what information was needed for people living in other communities. Any generalizability was limited to residents of the agricultural community only. However, the methods used to conduct this study were such that they can be replicated and used to conduct similar studies on people living in other communities that may experience similar circumstances.

Use of a convenience sampling method resulted in quota samples being used for this study. Quota sampling is used in a majority of market research, such as the type of research used in this study. Quota sampling is the non-probability equivalent of random sampling (Hader & Gabler, 2003). In quota sampling, the population is divided into different subpopulations or strata. Quota sampling is used to get a representative sample from the population with respect to the variables or characteristics, such as gender or age, which define the subpopulations. Because

it is the interviewer(s) who actually select(s) the sample units within the subpopulation, the influence of extraneous variables in making this selection is not ruled out. The aspect of quota sampling may increase the chances for various biases to occur (Hader & Gabler, 2003). Van de Vijver and Tanzer (2004) explained some biases that may exist in cross-cultural studies. These biases are listed in Table 2. No biases were detected in this study.

Sampling error is an error that is accounted for when conducting a study using a convenience sample such as this one. This type of error occurs when a sample of a population and not an entire population is surveyed. If the sample is drawn using a random sample procedure, it can be computed exactly (Harkness et al., 2003). The sample drawn for this study was randomly drawn and; therefore, was exactly computed.

In addition, coverage error is another error to be cognizant of when conducting a cross-cultural study. Coverage error occurs when all of the members of a population are not available for a study and; thus, these members are not considered for inclusion in the study. Coverage error is the amount by which statistics are off because the sample used did not represent the population being measured.

Qualitative component

Participant selection

The accessible population for this study was defined as all Louisiana residents who were agricultural producers. To be classified as a Louisiana agricultural producer, participants must farmed 200 acres or more of any of the following crops: corn, cotton, rice, soybeans, sugarcane, sweet potatoes, and wheat. These included low-sales farms and high-sales farms as defined by the United States Department of Agriculture (USDA). (USDA, 2013).. Participants were selected based on their answer to a verbal question of if they would be willing to participate in a interview.

Table 2: Strategies for Identifying and Dealing with Bias when Using Quota Sampling.

<u>Type of Bias</u>	<u>Strategies</u>
Construct Bias	<ul style="list-style-type: none"> • Decentering
Construct Bias and/or method bias	<ul style="list-style-type: none"> • Use of informants with expertise in local cultures and language • Use samples of bilingual subjects • Use of local pilots • Nonstandard instrument administration (e.g. “thinking aloud”) • Cross-cultural comparison of nomological networks (e.g. convergent/discriminant validity studies, monotrait-multimethod studies. • Connotation of key phrases (e.g. examination of similarity of meaning of frequently employed terms such as “somewhat agree.”
Method Bias	<ul style="list-style-type: none"> • Extensive training of interviewers • Detailed manual/protocol for administration, scoring, and interpretation. • Detailed instructions (e.g., with sufficient number of examples and/or exercises. • Use of subject and context variables (e.g. educational background). • Use of collateral information (e.g. test-taking behavior or test attitudes). • Assessment of response styles. • Use of test-retest, training and/or intervention studies
Item Bias	<ul style="list-style-type: none"> • Judgmental methods of item bias detection (e.g. linguistic and psychological analysis). • Psychometric methods of item bias detection (e.g. Differential Item Functioning analysis).

Instrumentation

Interviews were conducted with Louisiana agricultural producers at three LSU AgCenter Field Days: July 25, 2013 in St. Landry Parish; July 30, 2013 in Iberia Parish, and Sept. 5, 2013 in Franklin Parish to gather qualitative data for this study.. The questions used to generate information during the interviews were:

1. Do you use the Internet?
2. Do you use the LSU Agcenter dot com website?
3. What type of information do you search for on the Internet?

4. How do you search for information on the Internet?
5. Where do you get information to help you grow your crop?

Data collection

Structured interviews were conducted to obtain qualitative data for this study. The first interview served as the pilot test. This researcher shared results with her major professor, Dr. Machtmes. The interviewees were not required to give their names.

Participants for the interviews were selected based on the answers given on the survey, which asked them if they were willing to participate in an interview which would be used to gather additional information related to their feelings and/or opinions related to obtaining information from community media resources.

The type of information that was gathered during these interviews was obtained through participant observation and qualitative interviewing. Qualitative interviewing allowed researchers to understand experiences and reconstruct events in which they did not participate. This type of interviewing was especially useful in helping interviewers reach across boundaries such as: age, occupation, class, race, sex, and geography (Rubin & Rubin, 2005). Unlike the type of questions asked during quantitative surveys, questions asked during qualitative interviews were unique to each interviewee in that researchers could match their questions to what each interviewee knew and was willing to share (Rubin & Rubin, 2005). These open-ended questions lead to unstructured interviews, which were meant to get a “flavor” of what the interviewee had experienced in relation to the situation being investigated (Rubin & Rubin, 2005, p. 4).

Designing main questions was an important part of designing a qualitative interview.

According to Rubin and Rubin (2005), determining the main questions that needed to be asked in order to lead to interviewers obtaining the information needed was “straightforward.” To do this, an interviewer needed to first determine what their main research question would be.

Then, they wrote additional questions that helped them find additional information that would make their study more whole. To help decide what pieces of information were needed, Rubin and Rubin said investigators must have built their background knowledge of the subject, as well as an understanding of the logic of the situation that was examined. Once this knowledge had been acquired, investigators were able to word their main questions so that, when answering, the interviewees were inclined to include additional information related to their experiences with their experiences, and; thus, the investigator obtained additional information that could be used to evaluate the situation.

When conducting qualitative interviews, it is important to remember the main questions asked were meant to both expand and evolve. Because of this, not all of a study's main questions are always determined at the beginning of a research process. To help get the most use out of the main questions, Rubin and Rubin (2005) suggest some general principles for developing main questions. These are:

- Make sure interviewees are given an opportunity to answer the question as they saw fit. Interviews normally began with broad questions that were relatively easy to answer from the interviewee's experience and that did not cause the interviewee to give a particular response. Researchers were not to impose their own understanding or examples in presenting the main questions. Doing this may have caused interviewees to answer the question as they believe the interviewer wanted to hear it answered.
- Do not pose research problem(s) directly to the interviewees too often. Instead, the authors suggested translating the research problem in to questions that were easier for interviewees to answer based on their own experiences.

- Avoid questions that encouraged or allowed a yes-or-no answer.
- Avoid using the word “why” in main questions. Instead, questions that allowed interviewees to answer questions based on their experiences should be asked.
- Avoid main questions that elicited opinions. Questions that asked for an opinion early in the interview, caused participants being questioned to try to be consistent throughout the interview. If researchers believed they should ask opinion questions early during the interview, they should balance the question in such that elicited the good and the bad..

In addition to the difference in the questions that were asked, another way qualitative interviews differ was whether or not the interviews were meant to elicit understandings or meanings, or whether their purpose was to describe and portray specific events or processes (Rubin & Rubin, 2005). The two dimensions used in qualitative interviews were the breadth of focus and the subject (narrow or broad) and the subject of focus (meaning or description). According to Rubin and Rubin (2005) the variety of qualitative interviews were listed in the Table 3.

This study used action research and evaluation research in its qualitative interviews. The purpose of this type of interview was to determine if programs and policies were working, for whom they were working, and what could be improved. The type of interviews that will be held for this study will be formatted so that the interviewer and interviewees were engaged in a conversation. The interview questions will be based on what type of information the agricultural producers use the Internet to find, and if they know about the LSU AgCenter’s website. The

questions also will be designed to find out what written information the agricultural producers need, as well as what other materials the agricultural producers would like to find on the website (Rubin & Rubin, 2005).

Table 3: Types of Qualitative Interviews as Indicated by Rubin and Rubin.

<u>Interview Type</u>	<u>Narrowly-Focused Scope</u>	<u>In-Between</u>	<u>Broadly-Focused Scope</u>
Focuses mainly on meanings and frameworks.	Concept clarification	Theory elaboration <ul style="list-style-type: none"> • Oral histories, • Organizational culture 	Ethnographic interpretation
In-Between	Exit interviews	<ul style="list-style-type: none"> • Action research • Evaluation research 	Life history
Focused mainly on events and processes	Investigative interviewing		Elaborated case studies

It is important to remember that, when conducting person-to-person interviews to obtain data for a study, the wording of the questions may change in response to the interviewee. Rubin and Rubin (2005) noted that interviewees sometimes change the wording of questions and answer their modified versions of the questions instead of the questions that were asked. The authors stated that researchers should not get frustrated when this happens because, more likely than not, the interviewee was trying to put the question in their own language, or a language they can understand so that they can provide an answer. The interviewee may also be trying to tell the researcher that the researcher may have misunderstood something or might be trying to answer a related but more meaningful question than had actually been asked.

Rubin and Rubin (2005) also write that researchers must determine what questions to ask to get answers that address the overall concerns of the research problem. Answers they receive should be complete, clear, and concise. Researchers should have an idea of how much weight will be given to each answer. They also should be aware that any questions asked may lead to

new questions that may need to be answered. Any new questions that may arise will help give depth and understanding to a study. It was important researchers be open to asking new questions so that they may get additional information they had not originally considered.

For this study, qualitative data that will be collected will include:

- Agricultural producers' thoughts on information provided by LSU AgCenter researchers.
- How concerned were they that they were getting the latest information available in regard to the crops (production and sale).
- How confident they were the information provided by the LSU AgCenter can be trusted and used.
- What their thoughts were about improving information provided on the LSU AgCenter's website.

Validating qualitative data and results

In qualitative research, more emphasis is placed on validity than reliability. According to Plano-Clark and Creswell (2011), checking for qualitative validity means assessing whether or not the information obtained through qualitative data collection is accurate. There are strategies for checking qualitative validity and qualitative researchers typically use more than one strategy.

These strategies include:

- Member checking. This occurs when the investigator takes summaries of the findings back to key participants in the study and asks them if the findings reflect their own experiences.

- Triangulation of data. This is a common data analysis practice and occurs when the investigator builds evidence for a code or theme from several sources, or from several individuals.
- Reporting disconfirming evidence. Disconfirming evidence is information that presents a perspective that is contrary to the one indicated by the established evidence.
- Asking others to examine the data. This issue occurs when people not associated with the research examine the data used their own criteria.

This researcher used the triangulation of data to validate data collected for this study.

Reliability was said to be limited in meaning in quantitative research, but it was popular in qualitative research when there was an interest in comparing coding among several coders.

The basic procedure in qualitative research was to have an intercoder agreement, which involved several individuals who coded a transcript and, then, compared their work and determined if they arrived at the same codes or themes, or different ones (Miles & Huberman, 1994).

CHAPTER FOUR RESULTS AND DISCUSSION

Quantitative findings

A total of 40 respondents completed the web-based questionnaire and 147 completed the hard-copy questionnaire, all of which met the minimum requirements for inclusion in the sample, and all 187 returned surveys were used in the data analysis. Each respondent answered every question. The researcher asked producers at the field days if they had received the questionnaire via email in order to prevent any duplication. None of the producers at any of the field days had received the emailed version.

Objective one

Objective one of this study was to describe Louisiana agricultural producers on the following demographics:

- a) Age
- b) Gender
- c) Race
- d) Parishes farmed in
- e) Number of years farming in Louisiana

The results of the age category are show in Table 4.

Table 4: Age Demographic Results of Louisiana Agricultural Producers as Based on Results of the Media Usage by Louisiana Agricultural Producers survey.

<u>Age (in years)</u>	<u>Number</u>
25 and under	10
26-35	30
36-45	48
46-55	47
56-65	37
66 and older	15
Total	187

The results of the gender category show 94% of the respondents were male with 4% being female. The majority of respondents, 97%, were Caucasian, with 3% being African American. Table 5 shows the number of participants in each ethnic group.

Table 5: Number of Respondents of Media Usage Survey by Louisiana Agricultural Producers based on Ethnic Group

<u>Ethnic Group</u>	<u>Number of participants</u>
African American	5
Asian	0
Caucasian	182
Hispanic	0
Middle Easter	0
Other	0

Parishes Louisiana producers reported farming in are shown in Table 6.. Please note, some producers may have reported farming in more than one parish.

Table 6: Results of parishes Louisiana agricultural producers farm in as based on results of the Media Usage by Louisiana Agricultural Producers survey

<u>Parish and number of producers who reported farming in the parish</u>	<u>Parish and number of producers who reported farming in the parish</u>
Acadia – 3	Allen – 7
Ascension – 2	Assumption – 8
Avoyelles – 6	Beauregard – 1
Bienville – 4	Bossier – 3
Caddo – 3	Calcasieu – 2
Caldwell – 8	Cameron – 6
Catahoula – 4	Claiborne – 2
Concordia – 2	DeSoto – 5
East Baton Rouge – 11	East Carroll – 8
East Feliciana – 1	Evangeline – 3
Franklin – 15	Grant – 3
Iberia – 12	Iberville – 3
Jackson – 6	Jefferson – 2
Lafayette – 5	Lafourche – 3
LaSalle – 6	Lincoln – 3
Livingston – 3	Madison – 9
Morehouse – 6	Natchitoches – 5
Orleans – 4	Ouachita – 10
Plaquemines – 7	Pointe Coupee – 7
Rapides – 9	Red River – 11

Table 6, continued: Results of parishes Louisiana agricultural producers farm in as based on results of the Media Usage by Louisiana Agricultural Producers survey

<u>Parish and number of producers who reported farming in the parish</u>	<u>Parish and number of producers who reported farming in the parish</u>
Richland – 11	Sabine – 4
St. Bernard – 3	St. Charles – 3
St. Helena – 2	St. James – 3
St. John the Baptist – 7	St. Landry – 12
St. Martin – 3	St. Mary – 5
Tensas – 8	Terrebonne – 4
Union – 5	Vermilion – 3
Vernon – 3	Washington – 11
Webster – 8	West Baton Rouge – 2
West Carroll – 11	West Feliciana – 2
Winn – 5	Tangipahoa – 1
St. Tammany – 2	Terrebonne – 4
Tensas – 8	Vermilion – 3
Union – 5	Washington – 11
Vernon – 3	West Baton Rouge – 2
Webster – 8	West Feliciana – 2
West Carroll – 11	Winn – 5

The number of years Louisiana producers surveyed reported farming in Louisiana are show in Table 7.

Table 7: Number of Years Louisiana Agricultural producers Reported Farming as Based on Results of the Media Usage by Louisiana Agricultural Producers Survey

<u>Years farming</u>	<u>Percentage of producers</u>
1-10	5
11-20	28
21-30	32
31-40	33
41-50	2
Total	100

Objective two

Objective two of the study was to determine the frequency Louisiana producers accessed the LSU AgCenter’s website to gain agriculture-related information. Demographics used to calculate data related to this objective were age and gender. This objective had five possible responses:

- a. Not at all
- b. Monthly
- c. 2 or more times/week
- d. Weekly
- e. Daily

This objective examined ordinal variables. Measures of central tendency: mean, median and mode were computed for the items used in the frequency scale as reported by producers regarding often producers went to the LSU AgCenter website for information so that it could be determined the average period producers accessed the website. A numerical score was assigned to each of the responses of the frequency scale to determine the mean, median and mode of the answers from those surveyed who accessed the LSU AgCenter’s website. A numerical score of “one” was given to the response “Not at all,” “two” to the response “Monthly,” “three” to the response “2 or more times/week,” “four” to the response “Weekly,” and “five” to the response “Daily.” The survey results showed a mean of 2.30, a median of 2.0, and a mode of 2.0. Of the 187 surveys received, 21% of the producers said they did not access the website, while 79% said they did. Table 8 and Table 9 show the frequency test results for objective two.

Table 8: Frequency Test Results used to Determine the Frequency Louisiana Producers Accessed the LSU AgCenter’s Website to Gain Agricultural-Related Information

	<u>N</u>	<u>Percent</u>
Not at all	40	21.4%
Monthly	92	49.2%
2 or more times/wk.	19	10.2%
Weekly	30	16.0%
Daily	6	3.2%
Total	187	100.0%

Table 9: Frequency Test Results to Determine if Louisiana Producers Accessed the LSU AgCenter's Website to Gain Agricultural-Related Information

	<u>N</u>	<u>Percent</u>
No	40	21.4%
Yes	147	78.6%
Total	187	100.0%

A histogram (Figure 6) of the number of times producers accessed the website showed data skewed in a positive direction, indicating a majority of producers surveyed accessed the website.

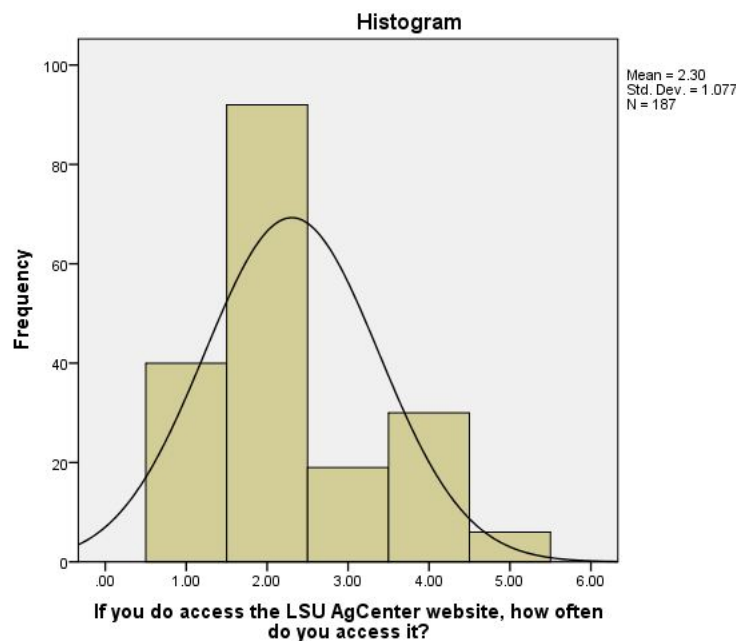


Figure 6: Histogram Showing Frequency Louisiana Agricultural Producers Accessed the LSU AgCenter's Website to Gain Agricultural Related Information

Respondents were then grouped into categories based upon their ages and a cross tabulation was run on SPSS to determine which age group accessed the website the most amount of times. The grouping was:

- 15-25 years
- 26-35 years
- 36-45 years
- 46-55 years

- 56-65 years
- 66 and older

Producers in the age group 36-45 accessed the website most often, $n=49$, with 13 of producers in this category who reported they accessed the website on a weekly basis. The results can be found in the Cross tabulations found in Table 10.

Table 10: Cross Tabulation to Determine the Frequency Louisiana Producers Accessed the LSU AgCenter's Website to Gain Agricultural-Related Information

<u>How often access site</u>	<u>Age in years</u>						<u>Total</u>
	<u>15-25</u>	<u>26-35</u>	<u>36-45</u>	<u>46-55</u>	<u>56-65</u>	<u>66 & older</u>	
Not at all	5	3	7	9	8	8	22%
Monthly	5	19	23	23	19	3	49%
2 or more times/wk	0	1	3	4	4	2	10%
Weekly	0	6	13	5	5	1	16%
Daily	0	1	2	1	1	1	3%
Total	5%	17%	27%	21%	21%	9%	100%

The information shown in the bar chart in Figure 7 agreed with the information found in Table10, which shows producers in both the 36-45 years age group and producers in the 46-55 years age group, accessed the website more than the other groups. These two groups were tied, 23 to 23, with respondents who reported they accessed the website on a monthly basis. The data also showed producers in the 36-45 years age group accessed the website on a weekly basis the most, with a total of 13. The 36-45 years age group also was the group that had the most returned surveys for the study with 48, or 25.7%, of the surveys. The 46-55 years age group had 47, or 25.1% of the returned surveys. With more than 50% of the returned surveys being taken by producers in the age group of 36-55 years old, and these producers indicating they did access

the website, producers in these age categories were the majority of agricultural producers in Louisiana, and more studies should be done to find out what information these producers need so that this information can be uploaded to the LSU AgCenter's website.

A group statistics test was run on objective two, to determine the frequency Louisiana producers accessed the LSU AgCenter's website to gain agriculture-related information, for male and female respondents, and can be seen in Table 11.

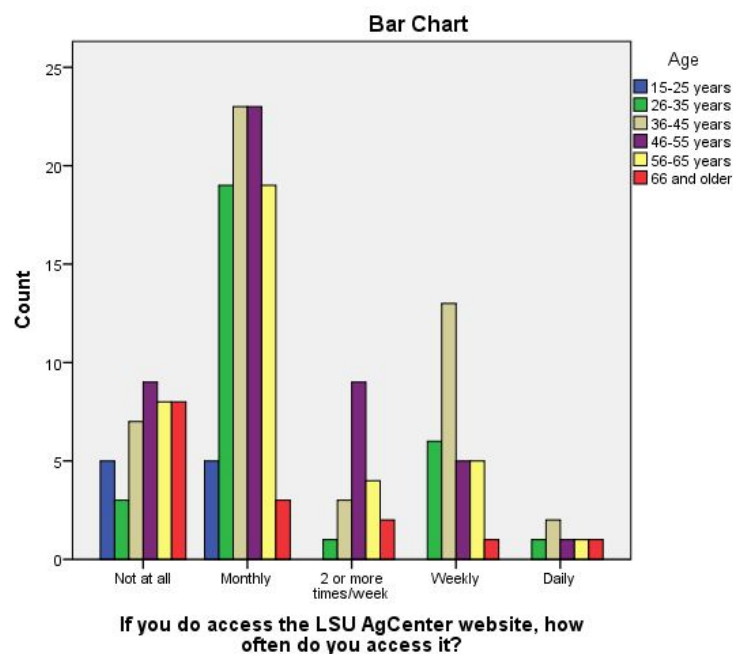


Figure 7: Bar graph Showing Frequency Louisiana Agricultural Producers Accessed the LSU AgCenter's Website to Gain Agricultural-Related Information

An independent samples t-test was run to compare the means of the male subjects and female subjects in the study on how often they accessed the LSU AgCenter's website. The results of the independent samples t-test are shown in Table 11. The independent samples t-test in Table 12 showed the statistical significance failed to reveal a statistically difference between the mean score for men ($M = 2.34$, $SD = 1.09$) and the mean score for women ($M = 1.82$, $SD = .60$) $t(185) = 1.55$, $p = .12$, $\alpha = .05$ on how often they accessed the LSU AgCenter's website.

The mean scores for both groups were closer to “two (Monthly),” which infers the majority of users, both male and female, who accessed the website, access the website on a monthly basis.

Table 11: Group Statistic for Independent Samples T-test To Determine the Frequency Male and Female Louisiana Producers Accessed the LSU AgCenter’s Website to Gain Agricultural-Related Information

<u>Gender</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>Std. Error Mean</u>
Male	176	2.34	1.09	.08
Female	11	1.82	.60	.18

Note: M=2.30, SD=1.08 with the range a low of 1, did not access the website, and a high of 5, accessed website daily.

Table 12: Independent Samples T-test for Male and Female Responses to Determine the Frequency Louisiana Producers Accessed the LSU AgCenter’s Website to Gain Agricultural-Related Information

		<u>Levene’s test for equality</u>		<u>t-test for Equality of Means</u>					<u>95% Confidence Interval</u>	
		<u>Sig</u>	<u>t</u>	<u>df</u>	<u>Sig (2-tailed)</u>	<u>Mean Difference</u>	<u>Std. Error Difference</u>		<u>Lower</u>	<u>Upper</u>
Equal variances assumed	5.07	.025	.55	85	.123	.52	.33		.14	1.17
Equal variances not assumed			2.59	14.50	.021	.52	.20		.09	.94

Objective three

Objective three was to determine if social media was an acceptable means of communicating with producers. This objective had two possible responses:

a.No

b.Yes

A numerical score was assigned to each of the responses to determine a mean for how many Louisiana agricultural producers used Social Media. A score of “One” was assigned for “No,” and a score of “Two” was assigned for “Yes.” Gender was the demographic used in this

objective to calculate the mean of the two items in the scale was computed to give an overall average of how many Louisiana agricultural producers utilized social media. Table 13 shows a breakdown of social media usage by Louisiana producers by gender, and Table 14 shows an independent samples t-test.

Table 13: Group Statistics To Document if Louisiana Producers used Social Media

<u>Gender</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>Std. Error Mean</u>
Male	94%	1.59	.49	.04
Female	6%	1.82	.40	.12

Table 14: Independent Samples T-test To Document if Louisiana Producers used Social Media

	<u>Levene's</u> <u>Test for Equality</u> <u>of Variances</u>		<u>t-test for Equality of Means</u>					<u>95% Confidence</u> <u>Interval</u>	
	<u>F</u>	<u>Sig.</u>	<u>t</u>	<u>df</u>	<u>Sig. (2-tailed)</u>	<u>Mean Difference</u>	<u>Std. Error Dif.</u>	<u>Lower</u>	<u>Upper</u>
Equal variances assumed	.36	.000	-1.53	185	.13	-.23	.15	-.53	.07
Equal variances not assumed			-1.83	11.95	.09	-.23	.13	-.51	.05

Again, an independent samples t-test failed to reveal a statistically reliable difference between the mean number of men ($M = 1.59$, $SD = .49$) and the mean number of women ($M = 1.82$, $SD = .040$) $t(185) = -1.53$, $p = .13$ ($p > .05$), $\alpha = .05$ on whether or not they utilize social networking sites.

The mean score for the total producers surveyed both male and female, who used social networking sites, was 1.95. The mean number of men (1.59) and the mean number of women (1.82) surveyed indicate a majority of Louisiana producers use social media.

According to information provided by participants, Facebook was the social network site used by Louisiana agricultural producers, followed by LinkedIn. A few producers indicated they used Twitter some, but not often. According to a Google Analytics report of the LSU AgCenter's website, www.lsuagcenter.com, provided for the months of January 2013 through

June 2013, the site was accessed 10,314 times. Of these accesses, the number that came to the website via Facebook was 75. Two were reported having been made through LinkedIn and none were reported from Twitter.

Objective four

Objective four was to determine the trust Louisiana producers have in information provided by the LSU AgCenter on its website to help them in their operation(s). The demographic used to calculate this objective was gender. This objective had four possible responses:

- a. Not at all
- b. A little
- c. Some
- d. A lot

Just as in objective two, analyzing data for this objective involved computing a mean of the four possible responses to determine how much trust producers, by gender, had in information provided by the LSU AgCenter on its website. A numerical score was assigned to each of the responses to determine a mean for the trust level of Louisiana agricultural producers in information provided by the LSU AgCenter on its website. A score of “One” was assigned for “Not at all,” a score of “Two” was assigned for “A little,” a score of “Three” was assigned for “Some,” and a score of “Four” was assigned for “A lot.” The mean of all items in the scale was computed to give an overall level of trust between Louisiana agricultural producers, based on gender, and information provided by the LSU AgCenter on its website. Group statistics for the

independent samples t-test was run and is shown in Table 15. A frequencies analysis was run for each available answer in order to generate a histogram. The results are available in Table 16 and Figure 8.

Table 15: Group statistics for independent samples t-test for total male and female responses in relation to objective four, To document the trust Louisiana producers have in information provided by the LSU AgCenter on its website to help them in their operations

<u>Gender</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>St. Error M</u>
M	176	3.48	.62	.05
F	11	3.27	.65	.19

Table 16: Frequencies Test to Document the Trust Louisiana Producers Have in Information Provided by the LSU AgCenter on its Website to Help Them in their Operations

	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
Not at all	1	.5	.5	.5
A little	10	5.3	5.3	5.9
Some	77	41.2	41.2	47.1
A lot	99	52.9	52.9	100.0
Total	187	100.0	100.0	

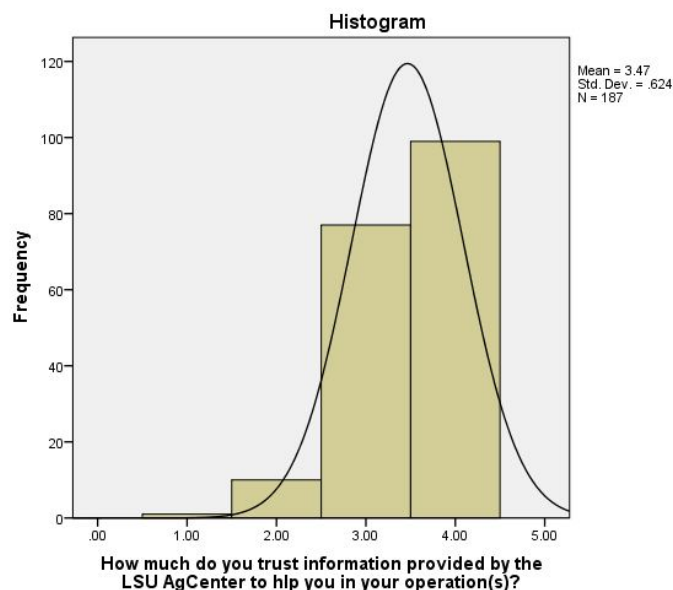


Figure 8: Histogram to show results of Frequencies Test for Trust Louisiana Agricultural Producers Have in Information Provided by the LSU AgCenter on its Website to help them in their Operation(s)

An independent samples t-test failed to reveal a statistically reliable difference between the mean number of men ($M = 3.48$, $s = .62$) and the mean number of women ($M = 3.27$, $s = .65$) $t(185) = 1.05$, $p = .29$ ($p > .05$), $\alpha = .05$, as seen in Table 17, on how much they trust information provided by the LSU AgCenter to help them with their operations.

Table 17: Independent Samples T-test to Document the Trust Louisiana Producers have in Information Provided by the LSU AgCenter on its Website to Help Them in Their Operations

	<u>Levene's Test for Equality of Variances</u>		<u>t-test for Equality of Means</u>					<u>95% Confidence Interval</u>	
	<u>F</u>	<u>Sig.</u>	<u>t</u>	<u>df</u>	<u>Sig. (2-tailed)</u>	<u>Mean Difference</u>	<u>Std. Error Dif.</u>	<u>Lower</u>	<u>Upper</u>
Equal variances assumed	.19	.67	.05	85	.293	.20	.19	.18	.59
Equal variances not assumed			.02	1.19	.329	.20	.20	-.24	.65

The mean number of men (3.48) and the mean number of women (3.27) surveyed indicated their trust for information provided by LSU AgCenter researchers was “some,” which infers there was not total trust by Louisiana producers in information provided by LSU AgCenter researchers by both male and female Louisiana agricultural producers.

Survey question results

A frequency analysis was conducted on each of the survey questions. For question one, How much do you enjoy keeping up with trends related to farming?, more than 67% of the respondents indicated they enjoyed keeping up with trends related to farming a lot. The total for the answer, “Some,” was 30.5%, with the total for the answer, “Not Much,” totaling 2.1%.

An analysis of question two, Do you have a favorite professional news or information source?, shows 56.1% of respondents do not have a favorite source, while 43.9% said they did have a favorite.

The results for question three, How well do these sources provide information you need?, showed 94% of the producers believe these sources provided some of the information the producers needed. A total of 5% of the producers said the sources provided all of the information they needed, and 5% said the sources didn't provide much of the information they needed.

In regard to question four, Is it easier today or harder today to keep up with information about the farming community?, 90% of respondents said it was "Easier," and 6% said it was "Harder." A total of 12% said there was "No real difference."

Question number five, What kind of impact does your local newspaper have on your farming community?, shows 54% of respondents believed their local newspaper had a minor impact, while 21% believed it had a major impact. A total of 23% of the respondents indicated their local newspaper had no impact on the local farming community.

Question number six asked if the producers used the internet. A total of 95% answered "yes," and 4% answered "no." Question seven, Do you send or receive e-mail?, had a yes response rate of 95% and a no response rate of 4%. The researcher checked this data again and found these answers to be correct, which indicates that perhaps one of the producers doesn't use the Internet, but does send and receive e-mail.

Question eight asked what kind of Information Technology (IT) device did the producers use. This answer could have had more than one answer. The producers indicated they did use

the following: desktop computer, laptop computer, iPhone, iPad, Tablet and Smart Phone. There were two who answered they used “Other,” which their answers were Androids.

Question nine asked if they used social networking sites. A total of 112 producers indicated they did, while 75 answered they did not. Facebook was the most used social networking site.

Question 10 asked if they used the LSU AgCenter website, www.lsuagcenter.com. A total of 79% of the producers answered “yes,” and 21% of the producers answered “no.”

Question 11 asked how often they used the LSU AgCenter website and 49% said they used it monthly. A total of 10% producers said they used it two or more times per week, while 16% of the producers said they visited the site weekly. A total of 3% of the producers said they visited the LSU AgCenter site daily.

Question 12 asked how much they trusted information provided by the LSU AgCenter to help them in their operations, and 53% of the producers said they trusted information from the AgCenter “a lot.” Forty-one percent of the producers indicated they trusted information provided by the LSU AgCenter “some,” while 5% of the producers said they trusted information provided by the LSU AgCenter “a little,” and just one producer answered he/she did not trust information from the LSU AgCenter “at all.”

The remaining questions were demographic questions and showed 94% of the respondents were male and 6% were female. There were 97% Caucasian respondents and 3% African American respondents. The ages of the respondents were broken down into categories and showed 36-45 years as being the largest category with 26% producers. The 46-55 years was the second highest category with 25% producers. The 56-65 years category had 20% producers, and the 26-35 years category had 16% producers. The 66 and older category had 8% producers and the 25 years and younger category had 5% producers.

When asked if they were willing to be contacted if more information was needed, 93% of the respondents said “yes,” and 7% of the respondents said, “no.”

Qualitative Data Results

These results consisted of open-ended questions in the survey and interviews that were conducted. These producers were asked to give their thoughts on information provided by LSU AgCenter researchers, how concerned they were that they were getting the latest information available in regard to the crops (production and sale), how confident they were the information provided by the LSU AgCenter can be trusted and used, and what their thoughts were about improving information provided on the LSU AgCenter’s website.

One theme that was evident after analyzing the qualitative data was that the men went online to look for research-based information

Another common theme that emerged from the interviews was that the men used the LSU AgCenter website to get answers to agriculture-related questions they had.

All of the eligible participants said they knew about the LSU AgCenter website and had used it. The participants were soybean growers and knew to go to the website for information they needed to help them with their crops. While participants one and two didn’t specifically say what information they used from the website, participant three said he most often used weed information and insect control information he found on the website. While all three said they thought they were getting the latest information available in their areas and that they trusted information posted by the LSU AgCenter researchers on the website, the three soybean growers did give some ideas for improving the website. Two of the producers said it would be helpful if a mobile weather application that could be used for iPhones, Smart Phones, tablets, iPads, etc., was available on the website. Participant one said mobile weather applications would be helpful.

My iPhone is the only thing I carry when I'm out in the field. It would be really helpful if I was able to go to the LSU AgCenter website and download weather information while I was out there so that I could determine what I needed to do in regard to watering, applying fertilizer and things like that.

Participant two agreed.

Weather is everything when you're talking about farming. Almost everything we (farmers) do depends on the weather. I use the Weather Channel app(lication)s to find out what the weather is, or is going to be like. But, if the LSU AgCenter had this information available on its site, I'd use the AgCenter's site.

Participant three said he would like to see a mobile application for insects and diseases related to soybeans be made available.

"When I go out in my fields and see evidence of insects or diseases, it would be great to logon to the LSU AgCenter's website and be able to access an app(lication) for insects, as well as diseases," he said.

The demographics for the producers interviewed were: 100% male, 100% Caucasian, and 100% in the 36-45 years age group. Two of the producers were from St. Landry Parish and one was from Franklin Parish.

Objective five

Objective five was to ascertain additional information Louisiana producers would like to see provided on the LSU AgCenter's website. This was an open-ended question with white space provided for the producers to write their answers.

Some themes that emerged included: budget programs that would allow users to input their unique information, more interactive material, mobile weather applications, market information, more current agricultural news, and success stories.

“Soybean budget information is helpful, but need to be able to put information in online and let computer calculate figures,” one respondent wrote.

“I like the cotton and corn pages,” another respondent wrote. “(The) budget (programs) would be better if we could input our information and let the computer figure costs, etc.”

A full list of the results of this question is available in Table 18.

Table 18: Additional Information Producers would Like to See Provided on the LSU AgCenter's Website: www.lsuagcenter.com

<i>A document similar to Arkansas mp44</i>	<i>More info about soybeans</i>
More current ag news	More site-specific information
More marketing information	Information about prices
Fungicide recommendations	None I can think of
More info related to North LA. More market info. More weather info.	More action pages
Information available in Spanish.	More info from N. LA about what farmers are doing to make their crops more plentiful
More interactive pages	More market news
More information from N.LA.	More modern pages – interactive material.
Looks fine.	Commodity Markets
Pages that let me do something, not just read.	More about cotton
Commodity market info. Financial planning info (blank budgets that can be figures by the computer).	I like the cotton and corn pages. Budgets would be better if we could input our information.
More market info. Success stories. (ufl.edu has success stories)	They do a good job.
Not sure	More info about cotton
No additional for my purposes	Markets
Market status	More info about markets
Success stories.	No suggestion
More easier to navigate	More education webinars in Precision Ag.
More applied research. Much less outdated	More success stories.
Extension.	Weather app showing total rainfall.
Current problems requiring attention.	More weather information
None, complete	Commodity reports
Market news	More videos to show how to do something
Trend data	Soybean budget information is helpful, but need to be able to put information in online and let computer calculate figures.
More weather information	Needs to be made easier to find information on.
More disease and pest information.	Corn Insect App
Weather app	

Table 18, continued: Additional Information Producers would Like to See Provided on the LSU AgCenter's Website: www.lsuagcenter.com

Ask an Expert like Texas A&M has	Podcasts
Information available in Spanish.	None
Pest management info	Need weather information/weather app
Website needs to be arranged better. Too hard to find anything.	Links to other ag information websites.
Current market data	Research updates
None	Weather reports
Budget generator like MSU.	Updated information about farm management, business, etc.
Info about sustainable agriculture	Images of insects with the management guides
More information about insects: how to detect them and how to get rid of them.	Updated dairy information
More info about disease management	Podcasts
More info about soybean diseases	Updated beef cattle info
None	Better budget info
Updated information on pesticides	More insect information
Ask the Expert like Texas A and M	Updated weather information
Market outlook reports	Market reports
More farm management info	Make website easier to navigate
More crop disease information	Farm safety info
Commodity prices	Weather app
More apps for iPhone	Market info
Market info that I can get on my iPhone	None
More disease and pest info for soybeans	Commodity prices
Looks fine to me	None
More updated data	Links to other ag websites
Videos demonstrating proper planting procedures for home gardens	More forestry information
Success stories	Info for alternative energy
More financial planning information	None
Podcasts	Better weather information
Updated info about farm safety	Up-to-date market reports
Budget software like MSU	More mobile apps
Mobile fact sheets like Oklahoma has	Make it easier to communicate with experts
More pesticide information	More irrigation information
Updated info on public policy	More info on fertilizers
More cotton info	More apps
Weed management	Irrigation
More info on disease mgt	Weed management
More irrigation info	Info on how to use a GPS
Information in Spanish	More weather information
Online budget tool	Market information
Info about irrigation	Need images of insects, weeds and diseases

Table 18, continued: Additional Information Producers would Like to See Provided on the LSU AgCenter's Website: www.lsuagcenter.com

Financial information	Weather information
Ask an Expert tool	Info in Spanish
Alternative energy info	Weed management info
Market info	Parish-specific weed, disease and insect info.
Weather information	Success stories
Online budget tool	Podcasts
Updated market info	Insect app
Irrigation info	More images of insects
Financial information	Farm Safety info/requirements
Market data	Website needs to be easier to navigate
I can't think of any	More info on GPS and Precision Ag
More videos about crop production – that show something or have someone talking about it.	None
More weather information. Weather is important to producers.	More info needs to be added on calendar
More dairy cattle information	Weather app
Something like Arkansas mp44	Info in Spanish
Commodity info	Online budget tool like MSU's budget generator
Success stories	Corn Scout tool like the Rice Scout tool
Need educational videos	Market info
Need updated crop production projected costs.	Farm safety requirements
Weather information	Online weed mgt app
Info on sustainable ag	Weather information
Info about plant breeding for plants in LA.	Budget tool.
Crop Outlook Report (existing and new crops)	IPM info
Updated disease reports	None
Weather data	Ag Almanac (University of Nebraska)
Irrigation information	Market data
More info on garden pests and disease	Farm Equipment info
More info on farming and economic development	Info on renewable energy
Commodity reports	Public Policy information
Ask an Expert tool	More info on water conservation
Public policy info	Weather information
More economic information	Info about sustainable agriculture
Fertilizer recommendations for corn	Farm safety requirements OSHA
BMPs to help maximize productivity	Irrigation methods

Objective six

Objective six was to identify factors related to how and when information provided by the LSU AgCenter was used in Community media vehicles. This was achieved by taking a random sample of community newspapers that were members of the Louisiana Press Association and had websites. The name of each publication was put on a piece of paper, folded once and put in a bowl. A total of 11 pieces of paper with the name of a medium were selected. Each selected publication's websites was visited and checked for LSU AgCenter articles that ran in the newspapers from January 1, 2013 until June 30, 2013. Based on the articles that ran, one major theme that was detected was these articles had a local slant. For instance, a headline in the Bastrop Daily Enterprise read, "Mer Rouge farmer may get two honors for his skill." This article was about Harper Armstrong who was nominated for Producer of the Year for Northeast Louisiana by LSU AgCenter agent Terry Erwin. Erwin's quote that ran with the article in the newspaper is an excellent example of showing the relationship LSU AgCenter agents have with their constituents. "I have worked closely with Mr. Armstrong for several decades," Erwin was reported as saying. "He has always been open to assisting our research demonstration methods by volunteering his time, labor, equipment, and his land so that other farmers could learn about hands on educational methods where the farmer could actually see how a particular practice or variety or pest control would work on his or her farm to increase profitability and allow our producers to continue to feed the world."

The newspapers randomly selected for this information shows a total of just one article appearing to 23 appearing during the six month period from January 1, 2013 to June 31, 2013. A total compilation of these results are available in Appendix C. Question six of the survey given to producers asked about the impact their local newspapers had on their local farming community. Question six read, "Thinking now just about your local newspaper, does it have a

MAJOR impact, a MINOR impact, or NO impact on your ability to keep up with information and news about your farming community?” Gender was the demographic used to calculate results for this objective. Possible responses were:

- No impact
- Minor impact
- Major impact

Their responses, by gender, are listed in Table 19. Table 20 shows a significance level of .46, indicating slightly some statistical significance, which also indicates local newspapers have some impact on the local farming communities.

Table 19: Group statistics based on Gender Regarding Impact of Local Newspaper on Farming Community

<u>Gender</u>	<u>N</u>	<u>Mean</u>	<u>Std. Deviation</u>	<u>St. Error Mean</u>
Male	176	1.96	.67	.05
Female	11	2.36	.67	.20

The Group Statistics table for objective six showed an independent samples t-test failed to reveal a statistically reliable difference between the mean number of men ($M = 1.96$, $SD = .67$) and the mean number of women ($M = 2.36$, $SD = .67$) $t(185) = -1.94$, $p = .46$ ($p > .05$), $\alpha = .05$ on the impact they thought their local newspapers had on the agricultural community.

Table 20: Independent Samples T-test based on Gender Regarding Impact of Local Newspaper on Farming Community

	<u>Levene's Test for Equality of Variances</u>		<u>t-test for Equality of Means</u>						
	<u>F</u>	<u>Sig.</u>	<u>t</u>	<u>df</u>	<u>Sig. (2-tailed)</u>	<u>Mean Difference</u>	<u>Std. Error Dif.</u>	<u>95% Confidence Interval</u>	
Equal variances assumed	.56	.46	-1.94	185	.055	-.40	.21	-.81	.01
Equal variances not assumed			-1.93	11.27	.080	-.40	.13	-.86	.06

CHAPTER FIVE SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary of purpose and objectives

The purpose of this study was to determine how Louisiana agricultural producers obtain information provided by the LSU AgCenter. Specifically, this study looked at how Louisiana agricultural producers utilized information provided by the LSU AgCenter on its website, www.lsuagcenter.com, as well as in other community media venues to show how using community media was a vital tool to use in relaying the LSU AgCenter's messages to Louisiana producers.

To help direct the researcher, the following objectives were developed by the researcher to guide the study:

1. Determine Louisiana producers' knowledge of the LSU AgCenter and how they obtain information provided by the LSU AgCenter.
2. Determine the frequency Louisiana producers accessed the LSU AgCenter's website to gain agriculture-related information.
3. Determine if social media was an acceptable means of communicating with producers.
4. Determine the trust Louisiana producers have in information provided by the LSU AgCenter on its website.
5. Determine what additional information Louisiana producers would like to see provided on the LSU AgCenter's website.
6. Identify factors related to how and when information provided by the LSU AgCenter is used in Community media vehicles.

Summary of procedures and methodology

The target population for this study was the Louisiana agricultural community.

The accessible population was producers who attended the 2013 Louisiana Farm Bureau Conference, as well as three LSU AgCenter Field Days — July 25, 2013, in St. Landry Parish; July 30, 2013, in Iberia Parish, and Sept. 5, 2013, in Franklin Parish — and participated in surveys distributed as part of this study.

The sampling plan implemented by the researcher for the producers consisted of those producers who filled out survey instruments at the 2013 Louisiana Farm Bureau Convention and three LSU AgCenter Field Days in St. Landry Parish, Iberia Parish, and Franklin Parish. These meetings yielded 147 returned surveys, all of which met the minimum requirements for inclusion in the sample, and were used in the data analysis. An additional 40 surveys were returned via the emailed version.

The researcher used two vehicles to distribute the same instrument to all participants. The online survey tool, Survey Monkey, was used to email the survey to participants who registered with the researcher during the 2013 Louisiana Farm Bureau Convention to take the survey. In addition, the researcher attended three LSU AgCenter field days in St. Landry Parish, Iberia Parish, and Franklin Parish where she distributed the surveys to field day participants. In addition, the researcher interviewed three attendees from the convention and field days to collect usable qualitative data.

Both the instrument used to collect quantitative data and the instrument used to collect qualitative data were researcher-designed questionnaires developed to accomplish objectives of the study. The researcher used a review of related literature from previous studies to guide the instrument development.

Data were collected at the 2013 Louisiana Farm Bureau Convention and three LSU AgCenter field days held from June to September 2013. These meetings were selected because they represented different geographic sections of the state and were known to be well-attended by Louisiana agricultural producers.

For the emailed surveys, the researcher explained the survey to Louisiana Farm Bureau Convention participants when getting their email addresses, as well as including an explanation in the introduction of the emailed survey. The producers were asked if farming was considered their main source of income. If their answer was “yes,” they were given the survey. If their answer was “no,” they were not given the survey. For the electronic version of the survey, the initial emailing went out, followed by two follow-up emails one week, two weeks, after the initial email was sent out. For the field days, the researcher made a short presentation at each meeting to explain the purpose of the survey. The surveys were then passed out to meeting attendees. To encourage participation, those individuals who completed and returned the surveys were eligible for a drawing of a gift certificate to a national hunting and outdoors store. The surveys were then collected by the researcher.

Summary of findings

Quantitative data

The first objective of the study sought to describe Louisiana agricultural producers on the following demographics:

- a) Age
- b) Gender
- c) Race
- d) Parish(es) farmed in
- e) Number of years farming in Louisiana

The data shows 5% of the participants were in the 25 and under age category. Sixteen percent of the participants were in the 26-35 age category, with 26% of the participants being in the 36-45 age category. A total of 25% participants reported being in the 46-55 age category, and 20% of the participants were shown in the 56-65 age category. A total of 8% participants were in the 66 and older age category. The total number of participants was 187. The results of the gender category show 94% of the respondents were male with 4% being female. The majority of respondents, 97%, were Caucasian, with 3% being African American. In the number of years of farming in Louisiana category, 5% of the producers reported farming 1-10 years, 28% reported farming 11-20 years, 32% reported farming 21-30 years, with 33% who reported farming 31-40 years and 2% who reported farming 41-50 years.

The second objective sought to determine the frequency Louisiana producers accessed the LSU AgCenter's website to gain agriculture-related information. This objective had five possible responses: "Not at all," "Monthly," "2 or more times/week," "Weekly," and "Daily." The results had a mean score of 2.30 ($SD=1.08$). The frequency with the highest number of responses was monthly ($n=92$), with the response, "not at all," having the second most responses ($n=40$).

The third objective was to determine if Social Media was an acceptable means of communicating with producers. This objective had two possible answers, "No" and "Yes." This objective had a mean score of 1.60 ($SD=.49$). A cross tabulation measure of the variable showed men with a mean score of 1.59 and women with a mean score of 1.82, indicating most Louisiana producers used Social Media.

The fourth objective was to determine the trust Louisiana producers have in information provided by the LSU AgCenter on its website to help them in their operation(s). This objective

had four possible responses: “Not at all,” “A little,” “Some,” “A lot.” The results had a mean score of 3.48 (SD=.62). The response “A lot” had the highest frequency rating with 99 (52.9%). The response “Some” had the second highest frequency with a rating of 77 (41.2%). The response “A little,” came in third with 10 (5.3%) and the response “Not at all” was last with a frequency of 1 (.5%).

The fifth objective was to determine what additional information Louisiana agricultural producers would like to see provided on the LSU AgCenter’s website.

The sixth objective was to identify factors related to how and when information provided by the LSU AgCenter was used in Community media vehicles. This was achieved by taking a random sample of community newspapers that were members of the Louisiana Press Association and had websites. The names of the newspapers were put on identical pieces of paper, folded once, put in a bowl and mixed around. A total of 12 names of newspapers were drawn. Then each website of each newspaper selected was checked for LSU AgCenter articles that ran in the newspapers from January 1, 2013 until June 30, 2013. The months and total articles that ran are provided in Table 22.

A full list of newspapers used for the study can be found in Appendix C.

Qualitative data

Qualitative data was gathered from open-ended questions, as well as personal interviews. One open-ended question was found in the fourth objective which was to determine how Louisiana agricultural producers obtained information provided by the LSU AgCenter; specifically if they used the LSU AgCenter’s website. This objective was determined by their answers to the open-ended questions and/or their answers to questions asked during the interviews. Questions asked the producers included: “What websites and/or publications do you access or read to get agriculture-related information?” Answers to the survey question showed

The Delta Farm Press was the publication that received the highest number with 71% (n = 133). Ag Consultants came in second as the place where Louisiana agricultural producers received information with 65% (n = 121). LSU AgCenter agents/offices came in third with 44% (n = 82) and the Louisiana Farm Bureau Federation came in fourth at 36% (n = 68). The LSU AgCenter's website came in fifth with 26% (n = 48). Please note, this was an open-ended question and producers could list more than one source from where they obtained information.

Another open-ended question was found to answer the fifth objective, which was to determine additional information Louisiana producers wanted to see provided on the LSU AgCenter's website. This was an open-ended question with white space provided in which they were to write their answers. While several producers reported they couldn't think of any other information they would like to see on the website, others reported wanting to see information provided in Spanish, a weather app they could use on their iPhones or Smart Phones, information about markets, as well as more success stories and more interactive material. Some of their responses include: podcasts, current market data, commodity reports, more budget information, more interactive materials, and more information about weed managements. A full list of their replies can be found in Table 21.

Table 21: Additional information Louisiana producers wanted to see provided on the LSU AgCenter's website

A document similar to Arkansas mp44	More info about soybeans
More current ag news	More site-specific information
More marketing information	Information about prices
Fungicide recommendations	None I can think of
More info related to North LA. More market info. More weather info.	More action pages
Information available in Spanish.	More info from N. LA about what farmers are doing to make their crops more plentiful
More interactive pages	More market news
More information from N.LA.	More modern pages – interactive material.
Looks fine.	Commodity Markets

Table 21, continued: Additional information Louisiana producers wanted to see provided on the LSU AgCenter's website

Not sure	More info about cotton
No additional for my purposes	Markets
Market status	More info about markets
Success stories.	No suggestion
More easier to navigate	More education webinars in Precision Ag.
More applied research. Much less outdated	More success stories.
Extension.	
Current problems requiring attention.	Weather app showing total rainfall.
None, complete	More weather information
Market news	Commodity reports
Trend data	More videos to show how to do something
More weather information	Soybean budget information is helpful, but need to be able to put information in online and let computer calculate figures.
	Needs to be made easier to find information on.
More disease and pest information.	Corn Insect App
Weather app	Podcasts
Ask an Expert like Texas A&M has	None
Information available in Spanish.	Need weather information/weather app
Pest management info	Links to other ag information websites.
Website needs to be arranged better. Too hard to find anything.	
Current market data	Research updates
None	Weather reports
Budget generator like MSU.	Updated information about farm management, business, etc.
	More info about plant diseases
More updated information	Images of insects with the management guides
Info about sustainable agriculture	Updated dairy information
More information about insects: how to detect them and how to get rid of them.	Podcasts
More info about disease management	Updated beef cattle info
More apps	Better budget info
More info about soybean diseases	More insect information
None	Updated weather information
Updated information on pesticides	Market reports
Ask the Expert like Texas A and M	Farm safety info
More farm management info	Weather app
More crop disease information	Market info
Commodity prices	None
More apps for iPhone	Commodity prices
Market info that I can get on my iPhone	None
More disease and pest info for soybeans	

Table 21, continued: Additional information Louisiana producers wanted to see provided on the LSU AgCenter’s website

More updated data	More forestry information
Videos demonstrating proper planting procedures for home gardens	Info for alternative energy
Success stories	None
More financial planning information	Better weather information
Podcasts	Up-to-date market reports
Updated info about farm safety	More mobile apps
Budget software like MSU	Make it easier to communicate with experts
Mobile fact sheets like Oklahoma has	More irrigation information
More pesticide information	More info on fertilizers
Updated info on public policy	More apps
More cotton info	Irrigation
Weed management	Weed management
More info on disease mgt	Info on how to use a GPS
More irrigation info	Information in Spanish
More weather information	Market information
Online budget tool	Need images of insects, weeds and diseases
Info about irrigation	Weather information
Financial information	Info in Spanish
Ask an Expert tool	Weed management info
Alternative energy info	Parish-specific weed, disease and insect info.
Market info	Success stories
Weather information	Podcasts
Online budget tool	Insect app
Updated market info	More images of insects
Irrigation info	Success stories
Links to other agencies	Farm Safety info/requirements
Financial information	Website needs to be easier to navigate
Market data	More info on GPS and Precision Ag
I can’t think of any	None
More videos about crop production – that show something or have someone talking about it.	More info needs to be added on calendar
More weather information. Weather is important to producers.	Weather app
More videos	More market information
None that I can think of	More budget information
More dairy cattle information	Info in Spanish
Something like Arkansas mp44	Online budget tool like MSU’s budget generator
Commodity info	Corn Scout tool like the Rice Scout tool
Success stories	Market info
Need educational videos	Farm safety requirements

Table 21, continued: Additional information Louisiana producers wanted to see provided on the LSU AgCenter’s website

Insect pest information with images.	Weather information
Info on sustainable ag	Budget tool.
Info about plant breeding for plants in LA.	IPM info
Crop Outlook Report (existing and new crops)	None
Updated disease reports	Ag Almanac (University of Nebraska)
Weather data	Market data
Irrigation information	Farm Equipment info
More info on garden pests and disease	Economic analyses
Commodity info	Info on renewable energy
More info on farming and economic development	Public Policy information
Commodity reports	More info on water conservation
Ask an Expert tool	Weather information
Public policy info	Info about sustainable ag
More economic information	Farm safety requirements OSHA
Fertilizer recommendations for corn	Irrigation methods
BMPs to help maximize productivity	Images in the disease and insect guides for corn and cotton.
More research reports	Ask an Expert tool
None	Info on water conservation

Usable qualitative data for this research was obtained from interviews conducted on three male producers, ages: 32, 37 and 41. The interviewees were asked to give their thoughts on:

- The information provided on the LSU AgCenter’s website.
- If they believed they were getting the latest information available.
- If they trusted the information provided by the LSU AgCenter on its website.
- What their thoughts were on improving information provided on the LSU AgCenter’s website.

After analyzing the qualitative data, this researcher found 100% of the participants knew of and used information found on the LSU AgCenter’s website. In addition, all participants said believed information provided by LSU AgCenter agents and researchers was trustworthy.

- “I follow it strenuously. I keep up with it, you know. I am very confident (information provided by the LSU AgCenter) can help me be successful with my farming operation,” participant one said.
- “We’ve got some pretty good guys attending this right here (field day). I mean LSU is a really reputable (inaudible). I think it’s up to date, yes m’am. I trust what (AgCenter agents and researchers) say,” participant two said.
- “I fully trust it,” said participant three in reference to the question about trusting information provided by the LSU AgCenter.

In relation website, the participants who knew about and used the website made these suggestions:

- Add a mobile weather application that can be used on iPhones, Smart Phones, Androids, iPads, laptops, and other mobile devices.
 - “A weather app, that would be a good one (to have available on the website),” participant one said. “I follow the weather every day (chuckles) I think that’d be a useful tool.”
 - “...any apps that would benefit us (producers) would be helpful, especially weather (app),” participant two said.
 - “...the latest on the insects moving in and uh, the diseases (people) are seeing. That would be helpful,” participant three said. He agreed an Insect Guide would be helpful.
- Add a mobile soybean diseases and a mobile soybeans insects application that can be used on iPhones, Smart Phones, Androids, iPads, laptops and other mobile devices. But only if it’s something unique as a lot of information is already available on the Internet.

- “I would like to see more information available on soybeans and milo that I can access from my iPhone. I’m not saying they’re not doing a good job now, but, a little more (information) maybe with the fungicides and, uh, you know, maybe some seed treatment (information). You know, topics about that maybe. That’s about it,” participant one said.
- Most of that information is probably already available on there,” participant two said. “You know, I’m sure, I mean, I don’t know how much more...anything you need is already on the Internet, so I don’t know how much more publication you can get on there.”
- "...the latest on the insects moving in and uh, the diseases (people) are seeing. That would be helpful," participant three said. He agreed an Insect Guide would be helpful.

In reference to the suggestion to make the website more easily navigated, this is one of the main characteristics of a website that should be taken seriously, because website navigation and content can play a vital role in developing public trust.

“I sometimes have trouble finding exactly what I need in the beginning,” participant one said. “But I click around and I eventually find it, if I looked long enough.”

According to Shi, a website’s content and design plays an important role in providing trust. Initial trust is one variable Shi said can influence people, pointing out that the first experience people have with a website is important because the integrity and perceived ability of an institution is often influenced by the initial online visit. Website design is one main characteristic this researcher found in creating trust from people in relation to websites. Cappel

and Huang (2007) offered 11 suggestions for increasing website usability by creating a pleasing website design. Design features they said would promote usability include:

- a. Using a breadcrumb trail. A breadcrumb trail shows users the path from the current screen back to the home screen. This is particularly helpful to users who enter the middle of a site based on a search from a search engine. A breadcrumb trail will help them go to the site's homepage in the event they needed more information.
- b. Site search capability. Provide a search box (or search link) on the homepage to help first-time users find information on the site.
- c. FAQ or Help Option. Having a Frequently Asked Questions (FAQ) or Help option on the homepage, with links to information elsewhere on the website, is a good tool for websites that were designed to provide support and information to use to help visitors find information on the website (Cappel & Huang, 2007).

Based on one of the interviews this researcher conducted for this study, navigation of the LSU AgCenter's website was difficult for some people. This researcher suggests the AgCenter study other website design possibilities and test them to find one that is easier to navigate.

As for the mobile apps suggestion, the LSU AgCenter does have four mobile apps on its website, www.lsuagcenter.com. These mobile apps were: Soybean Field Guide, Citrus Guide, Rice Scout, and Firecast. This researcher also inquired about the possibility of creating mobile weather applications, but was told funds were not available to do a project such as this.

Because funds were not available to create weather mobile applications, the researcher found weather mobile applications at The Weather Channel site. The Weather Channel mobile

applications were located on a page on the site and include mobile services for iPhones, Androids, Blackberries, iPads, and Kindle Fires. There also is a Mobile Web browser. Because this researcher is responsible for putting content on the LSU AgCenter's Sustainable Bioproducts Initiative (SUBI) site, this researcher put a link to The Weather Channel page on the SUBI Publications/Websites Links page.

Conclusions, Implications and Recommendations

Based upon the findings of this study, the following conclusions, implications, and recommendations were formulated by the researcher:

1. The majority of producers who responded to the survey ($n=133/187$, 71%) said they got their agriculture-related information from the Delta Farm Press. A total of 12 articles distributed by the LSU AgCenter Communications Department ran in the Delta Farm Press during the 6-month time period Jan. 1, 2013 to June 30, 2013. Some of the articles that ran in the Delta Farm Press included contact information – phone numbers and email addresses – for LSU AgCenter staff associated with the articles. In addition, some of the LSU AgCenter articles appearing in The Delta Farm press also include links to the LSU AgCenter website. This is an excellent example of how community media can help utilize cross-cultural communication between LSU AgCenter field and state agents, and Louisiana producers. See Appendix C for a list of LSU AgCenter articles that ran in the Delta Farm Press from Jan. 1, 2013 to June 30, 2013. According to Hernandez, Jimenez and Martin (2009), websites that appear on other websites increase popularity among potential clients who use the Internet to search for information because appearing on other host websites enables a website to achieve a higher rank in searches; thus, it will appear higher in the list of websites that come up because of a search (Hernandez, Jimenez & Martin, 2009). A

Google Analytics report for Jan. 1, 2013 to June 30, 2013, shows about 75 different traffic sources, or websites, that drove traffic to the LSU AgCenter website. Because links from other websites to the LSU AgCenter website have been found to drive traffic to the website, this researcher recommends including links in all press releases. Another way to drive traffic to the website is to run the LSU AgCenter's homepage URL, www.lsuagcenter.com, in every article. To ensure the website's URL runs in an article, it is recommended the URL be strategically placed throughout the articles to improve the possibility the URL, www.lsuagcenter.com, will run in both print and online editions. While just publishing the URL as text and not a link won't increase the website's Search rank, it will give Louisiana agricultural producers the information they need to access the website.

2. Of the 187 producers who returned usable surveys, 147, or 79% of the, producers said they accessed the LSU AgCenter's website. The highest frequency was monthly ($n=92$) for producers who accessed the site. This was followed by weekly ($n=30$), 2 or more times a week ($n=19$), and daily ($n=6$). A total of 40 producers surveyed said they did not access the website at all. Of those who indicated they did not access the website at all, 12 said they got LSU AgCenter information from their local LSU AgCenter agent or office. In today's technological world, where people constantly experience the impacts of information and communication technologies (ICT) on their daily activities and interactions with other people, face-to-face meetings, in person and not via video-based ICTs such as Skype, have become scarce (Yin, Shaw, & Yu, 2011). Still, "there is no substitute for face-to-face interaction, which builds trust" (Bacsu & Smith, 2011, p. 24). Because face-to-face interaction builds trust,

this researcher suggests that all LSU AgCenter agents tout the LSU AgCenter website and encourage agricultural producers to use the website to find information. Agents also should take extra care to be sure they specifically direct agricultural producers to the www.lsuagcenter.com site. During several events this researcher had attended, agents have told participants they can find more information on the “LSU website.”

While the agents’ intentions were probably to tell people they could find more information on the lsuagcenter.com website, the agents did not directly say this.

Constantly referring to the web address will help people remember and cognizant that this is the place to go for information related to Louisiana agriculture. Also, because producers in the age group 36-45 reported to access the website most often, a longitudinal study should be conducted to follow producers in this age group to determine if and how their needs for information change over time. By following the same producers over a period of time, the LSU AgCenter would have a better understanding of how crops in the state had changed, why these changes had occurred, and so on.

3. The third objective was to document the trust Louisiana producers have in information provided by the LSU AgCenter on its website to help them in their operation(s). This objective had four possible responses: “Not at all,” “A little,” “Some,” “A lot.” The results had a mean score of 3.48 ($SD=.62$). The response “A lot” had the highest frequency rating of 99 (52.9%). The response “Some” had the second highest frequency with a rating of 77 (41.2%). The response “A little,” came in third with 10 (5.3%) and the response “Not at all” was last with a frequency of 1 (.5%). Based on these results, the amount of trust Louisiana agricultural producers

had in material created by LSU AgCenter researchers outranked the other choices, which indicated Louisiana agricultural producers trust information provided by the LSU AgCenter “a lot.” Because the LSU AgCenter is a public entity, funded with public funds, having the trust of Louisiana agricultural producers is important for the LSU AgCenter to remain in operation. The Greek philosopher Aristotle called being credible and trustworthy, “ethos.” In his book, *The Rhetoric*, Aristotle divided persuasion into three categories: ethos, logos and pathos. Ethos played the most important role in influencing people’s thoughts and beliefs (Umeogu, 2012). In today’s world of digital media, information providers were faced with new challenges to persuade people to trust the information they provided. According to Metzger and Flanagin (2013), using social media could help companies publicize their websites because social media sites allowed for “a more social means of online information processing and evaluation, by providing peer-to-peer credibility assessments” (p. 9). The LSU AgCenter did use social media to publicize its website. At the time of this study, it had a Facebook page, Twitter site, and several blogs it used to publicize research its employees were engaged in. While having these social media sites could have been useful in helping the LSU AgCenter gain trust in the public, these sites also could damage the AgCenter’s credibility. In order to persuade Louisiana agricultural producers to visit these sites to get the latest information, information on these sites must be current. For instance, this researcher believes the Louisiana Rice Insects Field Notes page:

http://www.lsuagcenter.com/en/crops_livestock/crops/rice/Rice+Insect+Field+Notes/blog/,

should be discontinued and its link removed from the LSU AgCenter’s homepage because, at the time of this writing, an entry hadn’t been made since 2011. Louisiana

producers who may have come to the Louisiana Rice Insects Blog directly, such as through a search engine, may have seen these dates and believed all of the information on the website was outdated.

In reference to the suggestion made that information on the LSU AgCenter's website be available in both English and Spanish, a report from the Pew Research Center shows 52% of people who use mobile devices to get local news and information are Hispanic (Purcell et al., 2011). The report also shows 80% of the people who use mobile devices also use social network sites (Purcell et al., 2011). According to the U.S. Census Bureau (2007), about 45 million Spanish-speaking people live in America. Because so many Spanish-speaking people live and work in America, this researcher believes it would benefit the majority of the population if information was provided in English, as well as in Spanish. Information in Spanish could be made available on the LSU AgCenter's website by linking to information in Spanish provided by the USDA on its website. This information is free and available to anyone who wants it. Here is the USDA website: http://www.usda.gov/wps/portal/usda/usdahome?navid=EN_ESPANOL (USDA, 2013).

Since social networking became available in 2008, the number of people using social networking sites nearly doubled (Hampton et al., 2011). In addition, the average age of people who participated in social networking had gotten older. According to Hampton's study, people who participated in social networking sites were more trusting than those who don't. People who interacted on Facebook and other social networking sites were found to be more engaged in civic and social organizations. People also were found to be members of social networking sites they felt they belonged to, or sites where they had similar interests with other people on the site.

These feelings of trust and belonging were what drove people to belong to certain sites and share information with other people who also were members of the site.

According to the survey used in this study, 112, or 60%, of the 187 people surveyed used social networking sites such as Facebook, Twitter, LinkedIn, and so on. Facebook was the most popular site, with 100 of the 112 participants who used social networking sites indicating they had Facebook accounts. As has already been reported, the LSU AgCenter did have social networking sites. This researcher suggests these sites continue to be used, on a timely basis, to help share information with Louisiana agricultural producers.

In addition to online venues, the LSU AgCenter also was found to benefit from articles published in community newspapers. A random check of newspapers belonging to the Louisiana Press Association and having accessible websites, found several articles submitted by LSU AgCenter staff members that ran between Jan. 1, 2013 and June 30, 2013. It also was found that some of the same articles were attributed to different people in different newspapers. This was because these articles were generic-type articles and appeared as columns for agents in the LSU AgCenter's parish offices. Doing this gave the articles a local connection and agricultural producers read these articles. According to Althaus, Cizmar and Gimpel, (2009), the size of the community often determined its news consumption. Smaller communities had fewer outlets for local news and because of this, more members of the community referred to the local news source as their source for news. "Newspaper readers were both more trusting and better informed than television viewers..." (Kaufold et al., 2010). For the question of, "What impact does your local newspaper have on your farming community?," most of the participants indicated their local newspapers had a "Minor Impact," (n=102). The choice "Major Impact" was second (n=41), while "No Impact" on their local farming communities was last (n=44). Because

most of the respondents in this study indicated their local newspapers had at least a “Minor Impact,” meant the newspapers had some impact and; therefore, local newspapers should be used as a venue for communicating LSU AgCenter material to the general public. Based on this information, this researcher recommends LSU AgCenter agents continue to offer material to their local newspaper as often as they can to help them gain popularity in their communities, as well as help get the LSU AgCenter’s message out to Louisiana agricultural producers. If agents who already run material in their local newspapers don’t have a set schedule to run their columns, or material, they should try to set up a schedule with their newspaper’s editor(s).

Future Research

The researcher recommends that further research be undertaken by the LSU AgCenter Communications Department to determine if there were other avenues that could be used to help communicate AgCenter information to the public. For example, as technology improves and broadband Internet access becomes available to more residents living in rural areas, these residents may be better able to download audio, video and other potentially large files from the Internet with fewer restrictions. If this happens, more material related to Louisiana agriculture could be posted online.

The LSU AgCenter Communications Department also should research to find methods to use to make their website appear high in web searches. This would help drive traffic to the website and help it become more popular. Now that the LSU AgCenter has been merged with the main LSU campus, it would be beneficial if a link to the AgCenter’s website appeared on the front page of the LSU website.

In addition, further research should be done to determine how producers access information provided by the LSU AgCenter. For instance, if more producers were utilizing mobile devices to retrieve information from the Internet, more mobile applications should be

available from the AgCenter. By surveying Louisiana agricultural producers, the LSU AgCenter can determine what mobile applications, or other computer programs were needed to help Louisiana producers be more efficient and produce more bountiful crops. Figure 9 is a Logic Model demonstrating how these issues can be accomplished.

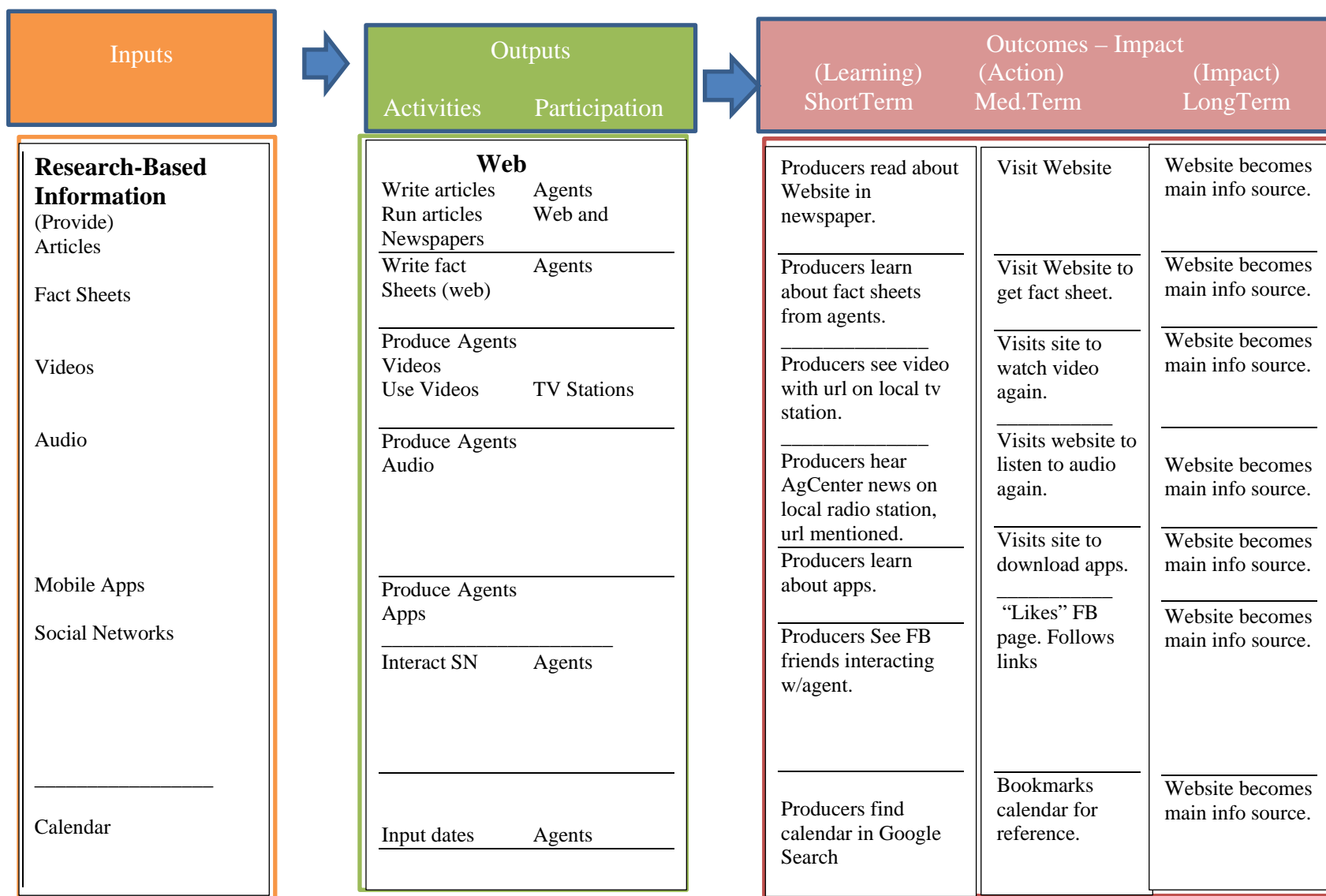


Figure 9: Logic Model

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APPENDIX A
IRB APPROVAL





LSU AgCenter Institutional Review Board (IRB)
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Application for Exemption from Institutional Oversight

All research projects using living humans as subjects, or samples or data obtained from humans must be approved or exempted in advance by the LSU AgCenter IRB. This form helps the principal investigator determine if a project may be exempted, and is used to request an exemption.

- Applicant, please fill out the application in its entirety and include the completed application as well as parts A-E, listed below, when submitting to the LSU AgCenter IRB. Once the application is completed, please submit the original and one copy to the chair, Dr. Michael J. Keenan, in 209 Knapp Hall.
- A Complete Application Includes All of the Following:
 - (A) The original and a copy of this completed form, and a copy of parts B through E.
 - (B) A brief project description (adequate to evaluate risks to subjects and to explain your responses to Parts 1 & 2).
 - (C) Copies of all instruments and all recruitment material to be used.
 - If this proposal is part of a grant proposal, include a copy of the proposal.
 - (D) The consent form you will use in the study (see part 2 for more information).
 - (E) Beginning January 1, 2009: Certificate of Completion of Human Subjects Protection Training for all personnel involved in the project, including students who are involved with testing and handling data, unless already on file with the LSU AgCenter IRB.
Training file: (<http://saacs.nih.gov/grants/pdfiles/hstslgslg.htm>)

1) Principal Investigator: Ava Denise Ataway Rank: Student Student? Y/N
Dept: HRE P#: 225.788.5245 E-mail: arocha1@tigerlouisiana.edu

2) Co-Investigator(s): please include department, rank, phone and e-mail for each
If student, as principal or co-investigator(s), please identify and include supervising professor in this space
Dr. Kresnusa Madhines, supervising professor

3) Project Title: Utilizing Community Media to Facilitate Cross-Cultural Communication Between LSU AgCenter Field and State Agents and Louisiana Residents

4) Grant Proposal? (yes or no) No If Yes, Proposal Number and funding Agency
Also, if Yes, either: this application completely matches the scope of work in the grant Y/N
OR
more IRB applications will be filed later Y/N

5) Subject pool (e.g. Nutrition Students, Louisiana Producers)
Circle any "vulnerable populations" to be used: (children 18, the mentally impaired, pregnant women, the aged, others) Projects with incarcerated persons cannot be exempted.
6) PI signature: *Ava Denise Ataway* Date: *6/25/09* (no post signatures)
*I certify that my responses are accurate and complete. If the project scope or design is later changed I will resubmit for review. I will obtain written approval from the Authorized Representative of all non-LSU AgCenter institutions in which the study is conducted. I also understand that it is my responsibility to maintain copies of all consent forms at the LSU AgCenter for three years after completion of the study. If I leave the LSU AgCenter before that time the consent forms should be preserved in the Departmental Office.

Committee Action: Exempted ☒ Not Exempted ☐ IRB# *HF13-6*

Reviewer: *Michael Keenan* Signature: *Michael Keenan* Date: *6-25-09*

APPENDIX B

FREQUENCY TABLES FOR RESULTS OF EACH SURVEY QUESTION

Question 1

<u>How much do you enjoy keeping up with trends related to farming?</u>				
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
Not much	4	2.1	2.1	2.1
Some	57	30.5	30.5	32.6
A lot	126	67.4	67.4	100.0
Total	187	100.0	100.0	

Question 2

<u>Do you have a favorite professional news or information source?</u>				
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
Do not have a favorite	105	56.1	56.1	56.1
Do have a favorite	82	43.9	43.9	100.0
Total	187	100.0	100.0	

Question 3

<u>How well do these sources provide information you need?</u>				
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
Not much of the information that matters to you	1	5	5	5
Some of the information that matters to you	176	94.1	94.1	94.7
All of the information that matters to you	10	5.3	5.3	100.0
Total	187	100.0	100.0	

Question 4

<u>Is it easier today or harder today to keep up with info about farming community?</u>				
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
No real difference	12	6.4	6.4	6.4
Harder	6	3.2	3.2	9.6
Easier	169	90.4	90.4	100.0
Total	187	100.0	100.0	

Question 5

<u>What kind of impact does your local newspaper have on your farming community?</u>				
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
No impact	44	23.5	23.5	23.5
Minor impact	102	54.5	54.5	78.1
Major impact	41	21.9	21.9	100.0
Total	187	100.0	100.0	

APPENDIX B, continued: Frequency tables for results of each survey question

Question 6

	<u>Do you use the Internet?</u>			
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
No	9	4.8	4.8	4.8
Yes	178	95.2	95.2	100.0
Total	187	100.0	100.0	

Question 7

	<u>Do you send or receive e-mail?</u>			
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
No	8	4.3	4.3	4.3
Yes	179	95.7	95.7	100.0
Total	187	100.0	100.0	

Question 8a

	<u>Desktop Computer</u>			
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
.00	124	66.3	66.3	66.3
Desktop Computer	63	33.7	33.7	100.0
Total	187	100.0	100.0	

Question 8b

	<u>Laptop Computer</u>			
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
.00	60	32.1	32.1	32.1
1.00	89	47.6	47.6	79.7
Laptop Computer	38	20.3	20.3	100.0
Total	187	100.0	100.0	

Question 8c

	<u>iPhone</u>			
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
.00	105	56.1	56.1	56.1
1.00	43	23.0	23.0	79.1
iPhone	39	20.9	20.9	100.0
Total	187	100.0	100.0	

Question 8d

	<u>iPad</u>			
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
.00	133	71.1	71.1	71.1
1.00	32	17.1	17.1	88.2
iPad	22	11.8	11.8	100.0
Total	187	100.0	100.0	

Question 8e

	<u>Tablet</u>			
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
.00	163	87.2	87.2	87.2
1.00	21	11.2	11.2	98.4
Tablet	3	1.6	1.6	100.0
Total	187	100.0	100.0	

APPENDIX B, continued: Frequency tables for results of each survey question

Question 8f

	<u>Frequency</u>	<u>Smart Phone Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
.00	125	66.8	66.8	66.8
1.00	51	27.3	27.3	27.3
Smart Phone	11	5.9	5.9	5.9
Total	187	100.0	100.0	100.0

Question 8g

	<u>Frequency</u>	<u>Other Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
.00	185	98.9	98.9	98.9
Other (please list)	2	1.1	1.1	100.0
Total	187	100.0	100.0	

Question 9

<u>Do you use Social Networking sites such as Facebook, Twitter, or LinkedIn?</u>				
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
No	75	40.1	40.1	40.1
Yes	112	59.9	59.9	100.0
Total	187	100.0	100.0	

Question 10

<u>Do you access the LSU AgCenter website?</u>				
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
No	40	21.4	21.4	21.4
Yes	147	78.6	78.6	100.0
Total	187	100.0	100.0	

Question 11

<u>If you do access the LSU AgCenter website, how often do you access it?</u>				
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
Not at all	40	21.4	21.4	21.4
Monthly	92	49.2	49.2	70.6
2 or more times/wk	19	10.2	10.2	80.7
Weekly	30	16.0	16.0	96.8
Daily	6	3.2	3.2	100.0
Total	187	100.0	100.0	

Question 12

<u>How much do you trust information provided by the LSU AgCenter to help you in your operation?</u>				
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
Not at all	1	.5	.5	.5
A little	10	5.3	5.3	5.9
Some	77	41.2	41.2	47.1
A lot	99	52.9	52.9	100.0
Total	187	100.0	100.0	

Question 13

	<u>Gender</u>			
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
Male	176	94.1	94.1	94.1
Female	11	5.9	5.9	100.0
Total	187	100.0	100.0	

Question 14

	<u>Age</u>			
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
25 years and under	10	5.3	5.3	5.3
26-35 years	30	16.0	16.0	21.4
36-45 years	48	25.7	25.7	47.1
46-55 years	47	25.1	25.1	72.2
56-65 years	37	19.8	19.8	92.0
66 and older	15	8.0	8.0	100.0
Total	187	100.0	100.0	

Question 15

	<u>Race</u>			
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
African American	5	2.7	2.7	2.7
Caucasian	182	97.3	97.3	100.0
Total	187	100.0	100.0	

Question 16

	<u>May I contact you if I need more information?</u>			
	<u>Frequency</u>	<u>Percent</u>	<u>Valid Percent</u>	<u>Cumulative Percent</u>
No	51	27.3	27.3	27.3
Yes	136	72.7	72.7	72.7
Total	187	100.0	100.0	100.0

APPENDIX C NEWSPAPER ARTICLES

Delta Farm Press

Title

Date

AgCenter extension director announces Sept. 15 retirement	Jan. 16, 2013
Harvest to first frost important time for southern growers	Jan. 16, 2013
AgCenter biofuels pilot plant commissioned in Louisiana	Jan. 23, 2013
AgCenter scientists provide advice to consultants at annual meeting	Jan. 28, 2013
Soybean and feed grain group awards \$1.8 million to LSU AgCenter	Feb. 20, 2013
LSU AgCenter scientists receive awards at regional meeting	Feb. 27, 2013
AgMagic returns to LSU AgCenter April 22-28	March 08, 2013
Wheat, oat field day set for April 17 at LSU AgCenter Macon Ridge Research Station	March 19, 2013
AgCenter researcher receives \$400,000 NSF grant	March 22, 2013
LSU AgCenter gets funds for national disaster website	March 21, 2013
Feeds, forages topic of AgCenter field day at Franklinton	April 09, 2013
AgCenter researcher adds position in policy institute	April 26, 2013

Vermilion Today

Title

Date

Farm Bill extension worries farmers from throughout Louisiana	January 2013
Gueydan farmer recognized as Master Farmer	January 2013
LSU Agcenter agent provides program for mothers	January 2013
More than 200 youth, 300 animals part of Vermilion Parish livestock show	January 2013
Alligator industry, LSU Ag Center research ways to better raise alligators	January 2013
Coreil named interim chancellor at LSU Alexandria	February 2013
Vermilion Parish cattle producers urged to attend cattle producing meeting	March 2013
It's Strawberry Time!	March 2013
The Versatile Tomato Plant	March 2013
Nutrition Month Blends Tradition, Culture With Healthful Eating	March 2013
There's more to shrimping than trawling	March 2013
Nutrition Month Blends Tradition, Culture With Healthful Eating	March 2013
Caravan visits Abbeville; group travels state in Airstream campers	March 2013
Rice planting essentially done in Acadiana	April 2013
Ag economy hit \$11.4 billion, a new high	April 2013

Appendix C, continued: Newspaper Articles

Louisiana Ag industry brought in \$11.4 billion this past year	April 2013
Flood insurance may get expensive for Vermilion Parish residents, businesses below base flood elevation	April 2013
GET IT GROWING!: Container, newly planted plants need special watering care	April 2013
Abbeville's own John Cecil McCrory will be inducted into state 4-H Hall of Fame on Saturday	May 2013
Rice Station field day set for June 26 in Crowley	June 2013
Abbeville's LeBlanc elected as Louisiana 4-H president; first time parish student state 4-H president since 1965	June 2013
Rice farmers begin preparing for first harvest	July 2013
<u>Cenla Focus</u>	
<u>Title</u>	<u>Date</u>
September is Rice Month	Sept. 2013
Alexandria Town Talk	
<u>Title</u>	<u>Date</u>
\$500,000 donation boosts project at Camp Grant Walker	June 2013
Louisiana teachers get outdoors to learn about forestry	June 2013
La. Rice growers concerned about lawsuit	March 2013
4-H teens encourage peers to adopt healthy habits	March 2013
Interim chancellor meets LSU-A community	Feb. 2013
Interim chancellor Coreil meets LSU-A community	Feb. 2013
Career AgCenter exec Coreil named interim chancellor of LSU-Alexandria	Feb. 6, 2013
Career AgCenter exec Coreil named interim chancellor of LSU-Alexandria	Feb. 5, 2013
Test fuels plant to open Jan. 25	Jan. 2013
Photo entries for Louisiana garden calendar due by Feb. 1	Jan. 2013
Umbrella season arrives	Jan. 2013
Heavy rain, warm weather to hit Central Louisiana	Jan. 2013
Amite-Tangi Digest	
<u>Title</u>	<u>Date</u>
Sweet potato seeds now available at LSU AgCenter in Amite	Jan. 2013
How to treat Tangilena fall vegetable crops after recent rain	Jan. 2013
Many of state's commodities see record yields, high prices in 2012	Jan. 2013
Tips to get a better job: dress better, consider what you say and how	Jan. 2013
LSU AgCenter to host free Connect My Louisiana seminar on Internet in Hammond, Jan. 15	Jan. 2013
Cold weather tips for your Tangilena pond, water lilies, pond fish and draining	Jan. 2013
Appendix C, continued: Newspaper Articles	

Livestock Show: Queen Karen Robbins of Folsom, King Connor Crain of Bogalusa	Jan. 2013
How to use vines in tight spaces, for shade or ground covers in Tangilena	Jan. 2013
LSU AgCenter hosts 2 tree courses in Franklinton for professionals during February	Jan. 2013
LSU AgCenter begins new test program for biofuels at Audubon Sugar Institute	Jan. 2013
Advice from LSU AgCenter: How to prune trees and shrubs correctly	Jan. 2013
With 200,000 horses in La., how trail rides can be a big business	Jan. 2013
Coreil named interim chancellor at LSU Alexandria	Feb. 2013
PETS: Join 4-H Benefit Pet Parade, Family Fun Fest Feb. 23 in Hammond	Feb. 2013
GARDENING: Sweet corn: plant early in Tangilena after last frost, harvest early in the morning	Feb. 2013
Bastrop Daily Enterprise	
<u>Title</u>	<u>Date</u>
Mer Rouge farmer may get two honors for his skills	Feb. 20, 2013
Today's Meeting focuses on promise of farming	Feb. 21, 2013
How does your garden grow?	March 19, 2013
Fifth annual plant sale	March 29, 2013
March storms brought hail, high winds	April 2, 2013
Centers offer lawn help	April 16, 2013
4-H Kid Chef Mini Camp Slated	May 30, 2013
Richland Beacon News	
<u>Title</u>	<u>Date</u>
March is Nutrition Month	Feb. 27, 2013
Time to look at men's health	June 11, 2013
Bunkie Record	
<u>Title</u>	<u>Date</u>
Coreil named interim chancellor at LSU-A	February 2013
There's more to shrimping than trawling	March 2013
Ag economy hits \$11.4 billion, a new high	April 2013
Rice planting essentially done in Acadiana	April 2013
12 more inducted in La. 4-H Hall of Fame	May 2013
The (Bogalusa) Daily News	
<u>Title</u>	<u>Date</u>
Registration now open for environmental competitions	Jan. 2013
Blackwell named 4-H county agent	Jan. 2013
Winning big (4-H)	Feb. 2013
5K raises funds for 4-H, Team Gleason	March 2013
Our view: 4-H students represent parish well	March 2013
Master Gardeners step into Spring	March 2013
Appendix C, continued: Newspaper Articles	

Bogalusa school participates in Smart Bodies program	March 2013
Varnado to show at 4-H Achievement Day	April 2013
City's first Earth Day event raises awareness	April 2013
Will budget cuts force closure of local Research Station?	May 2013
Pilot Body Quest program integrates technology, nutrition	May 2013
Research Station hosting Dairy Day this week	June 2013
The Plaquemines Gazette, Jan. 1, 2013 – June 30, 2013	
<u>Title</u>	<u>Date</u>
Researcher studies oil spill effects on Gulf oysters	June 2013
Crowley Post Sentinel	
<u>Title</u>	<u>Date</u>
AgCenter releases Rice Scout app	June 2013
Many visit 104 th Rice Field Day	June 2013
New disease found in corn	June 2013
La. 4-H elects new officers, names contest winners	June 2013
LaHouse open house to showcase storm-hardy home features	June 2013
Many palms can grow in Louisiana	June 2013
Scientists investigate use of nanoparticles to target ag chemicals	June 2013
High tech used to evaluate soil fertility for soybeans and corn	June 2013
Rotarians learn about EFNEP program	April 2013
Rice planting essentially done in Acadiana	April 2013
There's more to shrimping than trawling	March 2013
Coreil named interim chancellor at LSU-A	February 2013
Auction wraps up Jr. Livestock show	February 2013

APPENDIX D

SALUTATIONS FOR SURVEYS SENT OUT VIA SURVEY MONKEY

Initial email message:

My name is Denise Coolman-Attaway and I'm conducting a study to learn how Louisiana agricultural producers utilize community media to gain agriculture-related information and materials. You are being sent this survey because you indicated at the Louisiana Farm Bureau Federation convention in New Orleans that you were interested in helping me gain insight in Louisiana producers' use of community media, or you are being sent this survey because I have met you during my time with the LSU AgCenter. Participation in this study is entirely voluntary at all times. You may choose not to participate at all or to leave the study at any point. If you do participate, every effort will be made to keep any information collected about you confidential.

In order to progress through this survey, please use the following navigation buttons:

- Click the Next button to continue to the next page.
- Click the Previous button to return to the previous page.
- Click the Submit button to submit your survey.

Thank you!!

Follow-up email message

My name is Denise Coolman-Attaway and I am following up concerning a survey I sent last week in relation to a study I'm conducting to learn how Louisiana agricultural producers utilize community media to gain agriculture-related information and materials. As I indicated in the first email, you are being sent this survey because you indicated at the Louisiana Farm Bureau Federation convention in New Orleans that you were interested in helping me gain insight in Louisiana producers' use of community media, or you are being sent this survey because I have met you during my time with the LSU AgCenter. Participation in this study is entirely voluntary at all times. You may choose not to participate at all or to leave the study at any point. If you do participate, every effort will be made to keep any information collected about you confidential.

In order to progress through this survey, please use the following navigation buttons:

- Click the Next button to continue to the next page.
- Click the Previous button to return to the previous page.
- Click the Submit button to submit your survey.

Thank you!!

APPENDIX E
QUESTIONS FOR QUALITATIVE DATA

Media Usage by Louisiana Agricultural Producers

Thank you for participating in this survey. Participation is strictly voluntary and you may stop at any time. Every effort will be made to keep your responses confidential.

Thank you!

1. How much do you enjoy keeping up with the latest trends related to farming?
 - a. Not at all
 - b. Not much
 - c. Some
 - d. A lot
2. Thinking about all of the different professional news and information sources you use, both online and offline, such as the USDA website or Louisiana Agriculture, do you currently have a favorite professional news or information source?
 - a. Do not have a favorite
 - b. Have favorite
3. What is your favorite source for professional news and/or information? This includes online sites such as usda.gov and/or publications such as Louisiana Agriculture. (Please list).
4. Thinking about all of the professional news and information sources you use, how well do these sources provide the information you need?
 - a. NONE of the information that matters to you.
 - b. NOT MUCH of the information that matters to you.
 - c. SOME of the information that matters to you.
 - d. ALL of the information that matters to you.
5. Overall, compared to five years ago, do you think it is EASIER today or MORE DIFFICULT today to keep up with information and news about the farming community, or is there no real difference today compared with five years ago?
 - a. No real difference
 - b. More Difficult
 - c. Easier
6. Thinking now just about your local newspaper, does it have a MAJOR impact, a MINOR impact, or NO impact on your ability to keep up with information and news about your farming community?

- a. No impact
 - b. Minor impact
 - c. Major impact
7. Do you use the Internet?
- a. No
 - b. Yes
8. Do you send or receive e-mail?
- a. No
 - b. Yes
9. Do you use any of the following devices to access the Internet? (Check all that apply)
- a. Desktop Computer
 - b. Laptop Computer
 - c. iPhone
 - d. iPad
 - e. Tablet
 - f. Smart Phone
 - g. Other (please specify)

10. Do you use Social Networking (SN) sites such as Facebook, Twitter, LinkedIn, etc.?
- a. No
 - b. Yes (Please list sites used in space below)
(Sites used)

11. What sites do you most frequently access from the Internet? (publications, SN sites, etc. Give web address if known)



12. Do you access the LSU AgCenter website? (www.lsuagcenter.com)

- a. No
- b. Yes


13. If yes, how often?

- a. Not at all
- b. Monthly
- c. 2 or more times/week
- d. Weekly
- e. Daily

14. How much do you trust information provided by the LSU AgCenter to help you in your operations?

- a. Not at all
- b. A little
- c. Some
- d. A lot

15. What additional information would you like to see provided on the LSU AgCenter's website?



Demographic Information

Providing this information is strictly voluntary

16. Gender

- a. Male
- b. Female

17. Age

- a. 15-25 years old
- b. 26-35 years old
- c. 36-45 years old
- d. 46-55 years old
- e. 56-65 years old
- f. 66 and older

18. Race

- a. African American
- b. Asian
- c. Caucasian
- d. Hispanic
- e. Middle Eastern
- f. Other (please specify)

19. What parish(es) do you live in and/or farm in? Please check all applicable parish(es).

Acadia
Allen
Ascension
Assumption
Avoyelles
Beauregard
Bienville
Bossier
Caddo
Calcausieu
Caldwell
Cameron
Catahoula
Claiborne
Concordia
DeSoto
East Baton Rouge
East Carroll
East Feliciana
Evangeline
Franklin
Grant
Iberia
Iberville
Jackson
Jefferson

Lafayette
Lafourche
LaSalle
Lincoln
Livingston
Madison
Morehouse
Natchitoches
Orleans
Ouachita
Plaquemines
Pointe Coupee
Rapides
Red River
Richland
Sabine
St. Bernard
St. Charles
St. Helena
St. James
St. John the Baptist
St. Landry
St. Martin
St. Mary
St. Tammany
Tangipahoa
Tensas
Terrebonne
Union
Vermilion
Vernon
Washington
Webster
West Baton Rouge
West Carroll
West Feliciana
Winn

20. How many years have you been farming in Louisiana?

21. May I contact you if I need more information?

- a. No
- b. Yes

22. If yes, please leave your preferred method of contact:

- a. Phone number _____
- b. Email address _____

THE VITA

Ava Denise Coolman-Attaway was born in 1965, to the parents of Walter N. and Connie Bensing Coolman. She attended elementary school at Verda Elementary in Verda, La. She attended junior high school at J.W. Gaines Junior High School in Montgomery, La. She, then, attended Montgomery High School in Montgomery, La, where she was named Miss Montgomery High School 1983 and class salutatorian.

After high school, she entered Northwestern State University in Natchitoches, La., on a president's leadership scholarship, an academic scholarship and a band scholarship. After spending two years at Northwestern State University, she transferred to Louisiana Tech University in Ruston, La. She graduated from Louisiana Tech University in 1989, with a bachelor's degree in journalism. She, then, worked for 10 years as a newspaper reporter in Denham Springs, La., Florence, S.C., and Monroe, La., before returning to Louisiana Tech University to obtain a master's degree in technical writing. While she was obtaining her master's degree, Attaway worked as a communications agent for the LSU AgCenter in North Louisiana. She graduated with her master's degree in June 2003. In August 2003, she married Rance Attaway.

The couple moved to Baton Rouge in 2006, and Attaway went to work for Innovative Emergency Management, Co. (IEM). After working at IEM for 10 months, Attaway returned to work with the LSU AgCenter on the Louisiana State University Baton Rouge campus as project coordinator for the AgCenter's part in the Federal Emergency Management Agency's (FEMA) response to the devastation Louisiana residents suffered after Hurricane's Katrina and Rita in 2005. After the grant which funded this project expired, she moved to the All About Blueberries project as project coordinator. This project was a part of the U.S.D.A.'s eXtension (sic) program, which was an interactive learning environment featuring research-based knowledge

from all over the United States (eXtension, 2013). This project involved coordinating efforts between Cooperative Extension Service agents and researchers across the United States. After the grant which funded this project expired, Attaway became project coordinator for the LSU AgCenter's biofuels project. This project, titled, the Sustainable Bioproducts Initiative (SUBI), involves a team of university and industry partners led by the LSU AgCenter, who studied the production of biomass from sweet sorghum and energy cane for economically viable conversion to biofuels and bioenergy using existing refinery infrastructure (LSU SUBI, 2013).

Because she was working on a university campus, Attaway saw this as an excellent opportunity to pursue a doctorate degree. She applied for and was accepted in to the School of Human Resource Education and Workforce Development School of Human Resource Education. She began working on her doctorate degree in the Fall Semester 2010 and is now a candidate for a doctorate.