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**Journal of
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*Official Journal of the Association for Communication Excellence
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The Journal of Applied Communications

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The Message or the Channel: An Experimental Design of Consumers' Perceptions of a Local Food Message and the Media Channels Used to Deliver the Information

Jessica Holt, Joy N. Rumble, Ricky Telg, and Alexa Lamm

Abstract

With the ever-increasing options of communication media channels, the question of, "Which media channel is the best for a message?" is an important question for researchers and professionals in the agricultural arena. This research sought to determine how the interaction between consumers' perceptions of the message and past media use impacted their attitudes toward the media channels of print, video, and Web. The theoretical framework used in this study was media richness, which was used to understand the characteristics of different media channels and their ability to deliver information. The message used in this study was related to buying local food in Florida. This study used an experimental design to assess respondents' attitudes toward media channels. The population for the study was Florida consumers, and a non-probability sample was used. The 1,122 respondents of this study were given a message through one of the three media channels of a print, video, or Web advertisement and then asked their perceptions of the message and the media channel. The results indicated respondents' attitudes toward the channel were significantly impacted by their perception of the message but not their past media usage. Recommendations for future research of theory and professional application are given.

Key Words

Attitude toward media channels, message perceptions, media richness, media channel perceptions, past media use, agricultural messages, and local food messages

Introduction and Theoretical Framework

Starting with print media, then progressing to radio, television, Internet, and now interactive technology, the communication field has experienced different channels and methods for connecting with consumers (McQuail, 2010; Severin & Tankard, 2001). With the invention of the printing press, the ability to share printed material for information and entertainment became more popular for delivering messages to consumers (McQuail, 2010). Television has progressed from black and white projections to digital television that enables users to access thousands of choices of channels with high-resolution graphics and messages (Severin & Tankard, 2001). The Internet has expanded

The Florida Department of Agriculture and Consumer Services and the U.S. Department of Agriculture provided funding for this study through a specialty crop block grant. This manuscript was part of a larger study. A version of this manuscript was presented at the 2015 Association for Communication Excellence (ACE) Conference in Charleston, South Carolina.

upon both of these channels to allow users to create and explore information that interests them (Liu & Shrum, 2002; McQuail, 2010).

Similar to the industrial revolution and the “information revolution,” the way in which information has been communicated and disseminated has been changing with the growth and addition of communication technology (Mulhern, 2009). With this technological revolution, the ways in which ideas and information can be passed along to consumers has changed. The changing atmosphere in communication, known as “media convergence,” has led to communicators utilizing all forms of communication channels to reach audiences (Severin & Tankard, 2001). An integral part of the communication profession has included understanding and utilizing the most effective media channel to connect with consumers because the media channel can impact consumers’ perceptions about the message with the varying capabilities of the channel (Bennett, 2010).

Regardless of the message, consumers form attitudes about a message based on the source and choose to either accept or reject a message based on their trust and level of comfort with the source of the message (Bennett, 2010; Eiser, Miles, & Frewer, 2002; Frewer, Howard, Hedderley, & Shepherd, 1996). Also, visual and verbal components incorporated with the message can influence individuals’ attitudes about a product and attitudes about a brand in general (Mitchell, 1986). Knowing consumers form opinions about a message based on the source or channel adds significance to the need for communication specialists to understand the audience and tailor the message and media channel to the preferences of the target audience (Ledford, 2012). Ledford (2012) gave the example that a person comfortable with using text messaging “could assess the language of texting as more natural than the formal language of a business letter, whereas someone in the older demographic may find the formality more natural than the ‘shorthand of texting’” (p. 178).

While much research has been published about the effectiveness of utilizing multiple media channels for marketing purposes (Mulhern, 2009; Schooler, Chaffee, Flora, & Roser, 1998), little has been published about which media channel has been most effective for delivering specific information to consumers. Studies have established that communicators have had many media channels to choose from when implementing a marketing strategy; however, what consumers choose to do and how they process the messages received through those media channels has not been discussed sufficiently (Webster & Ksiazek, 2012). With technological communication advances, consumers and marketing professionals have many different communication channels available to them in the 21st century. Consumers have preferences for media channels; “those preferences might reflect user needs, moods, attitudes, or tastes, but their actions are ‘rational’ in the sense that they serve those psychological predispositions” (Webster & Ksiazek, 2012, p. 41). By having more knowledge about consumers’ media channel preferences, marketing campaigns can be implemented with that information in mind (Ledford, 2012).

Many of the messages consumers have received have been related to the food they eat. “Food is quickly becoming a powerful symbol in the struggle to transition to a more sustainable pathway, and interest surrounding food has been increasing steadily” (Kerton & Sinclair, 2010, p. 401). Consumers have had many choices when deciding what foods and products to buy for their families. One of the choices available to consumers, in relation to the types of foods and products they choose to buy, is locally grown food (Onken & Bernard, 2010). Eating locally grown food has been a growing trend in communities within the U.S. to foster connectedness between consumers and their communities, create relationships with those individuals who grow and produce their food, and revitalize local communities (Schnell, 2013). Local food markets have allowed small farmers to sell their goods using a direct marketing approach (Martinez et al., 2010).

Locally grown food has been growing in prominence as an interest with those consumers who are concerned about how their food has been grown and produced (Schnell, 2013). Research has shown consumers are flexible in their personal definition of the term “local” based on the type of food they are purchasing and their regional location (Conaway & Rumble, 2013). Since it has been shown the definition of “local” may span across a state or even across a region, communication specialists have employed a variety of marketing materials to reach consumers. Communication efforts in promoting locally grown food have ranged from TV commercials, print materials (brochures, signage, and advertisements), Websites, and word-of-mouth advertising (Martinez et al., 2010). However, no information has been made available related to which media channel has been most effective for conveying the message about buying locally grown food to consumers. With this in mind, importance should be placed on understanding which media channel(s) has the most potential to effectively encourage consumers to buy locally grown food.

This research was specifically interested in examining the channel’s impact on the individual’s attitude toward buying local food, specifically Florida-grown blueberries. The following research objective guided this study:

RO: Determine the effect the interaction between media channel and past media use has on attitude toward channel, when controlling for perception of message.

Also, one hypothesis was used in this study, based on previous research related to consumers’ media usage, and was used in guiding this research:

H₁: Subjects will have a more favorable attitude toward media channel when exposed to the Web media channel than when exposed to the print or video media channels.

Media Richness

Different forms of media (i.e. print, video, and Web media) have the ability to convey information based on their characteristics and capacity (Carlson & Zmud, 1999). “Media richness, then, refers to the channels’ relative abilities to convey messages that communicate rich information” (Carlson & Zmud, 1999, p. 154). A “rich” media channel has been shown to have the ability to deliver complex information because of its characteristics of providing feedback, multiple cues, language diversification, and personalization; whereas, a “lean” media channel has been shown to best convey simple information with a limited amount of information based on its characteristics (Pieterse, Teerling, & Ebbers, 2008). A media channel’s “richness” or “leanness” has been based on the following characteristics: “immediate feedback, the number of cues and channels used, personalization, and language variety” (Pieterse et al., 2008, p. 220).

Immediate feedback refers to the ability to interact and receive feedback about a message, number of cues refers to the ability to deliver the message in multiple ways (video, print, and Web), personalization refers to the ability to manipulate the message for the intended receivers, and language refers to the ability to alter the words within the message (Pieterse et al., 2008). “Rich” media channels have been shown to contain all of the four characteristics; whereas, “lean” media channels have been shown to be lacking one or more of the characteristics (Pieterse et al., 2008). The theory of media richness was introduced and designed by Daft and Lengel in 1984 (Daft & Lengel, 1986), with the intent to improve the flow of information and ideas throughout an organization and facilitate growth among the organization (D’Urso & Rains, 2008). The theory of media richness was

developed with the idea that each media channel was on a continuum of information capacity (Daft & Lengel, 1986). Face-to-face communication is considered to have the highest capacity for carrying the most information to the receiver and is a “rich” media channel; whereas, computer spreadsheets and memos are considered the “leanest” media channel because they lack capacity for carrying information (Daft & Lengel, 1986; D’Urso & Rains, 2008). “Rich” media channels should be used to convey messages that require a large amount of information to make a decision, and “lean” messages are best for sending small amounts of information (Daft & Lengel, 1986). A “rich” media channel cannot be used in a “lean” situation because too much superfluous information is provided (Daft & Lengel, 1986). Also, “lean” media channels cannot be used in a situation that requires a “rich” media channel because they lack the ability to give enough information and lead to miscommunication and confusion (Daft & Lengel, 1986). Therefore, the appropriate media channel must be decided based on the situation.

Communication professionals have used the theory of media richness to determine which media channel was most appropriate for a given message; however, “we have moved to an era of dialogic communication campaigns in which the public has more power in controlling message design and delivery” (Ledford, 2012, p. 176). Ledford (2012) discussed the emergence of the idea that allowed communication practitioners to determine which communication channel would be the most appropriate to use in disseminating their message because the type of message plays a critical role in media channel selection. The control level of the message is primarily dictated by the design and delivery of the message (Ledford, 2012). The amount of control affects the type and amount of feedback consumers give. Ledford (2012) suggested that communication professionals should analyze their audience and message to determine how rich the media should be and how much control is needed. Once those factors are determined, the communicators should then use typology channel selection figure (Figure 1) to determine which media channel would be most effective for their message (Ledford, 2012).

Methods and Procedures

For this study, a posttest-only experimental design was used to determine which media channel had the most impact on consumer attitude toward the media channel. This research used a within-subjects design. For this study, respondents were randomly assigned to one treatment, and then past use of media, attitude toward the media channel and perception of the message were assessed.

The posttest-only study design guided the experimental groups using the following designations: R = random assignment, $X_{(i)}$ = treatment level, and $O_{(j)}$ = observation of treatment effect. $X_{(1)}$ = print media channel, $X_{(2)}$ = video channel, and $X_{(3)}$ = Web media channel.

A convenience sample of consumers within the state of Florida was used for this study. Although the findings from this research cannot be generalized to a broader population because of the use of a convenience sample, the findings may be applied cautiously to specific populations (McMillan & Schumacher, 2010). “Convenience samples are widely used in both quantitative and qualitative studies because this may be the best the researcher can accomplish due to practical constraints, efficiency, and accessibility” (McMillan & Schumacher, 2010, p. 137).

To establish the sampling frame for this study, first the population was determined to be all adult consumers within the state of Florida. The U.S. Census Bureau’s most up-to-date data for the state of Florida was used. The population size according to the U.S. Census Bureau in 2010 was 18,801,310 (U.S. Census Bureau, 2014). Since it was not economically or logistically possible to obtain a random sample of all Florida consumers, an independent marketing firm recruited respondents for this study

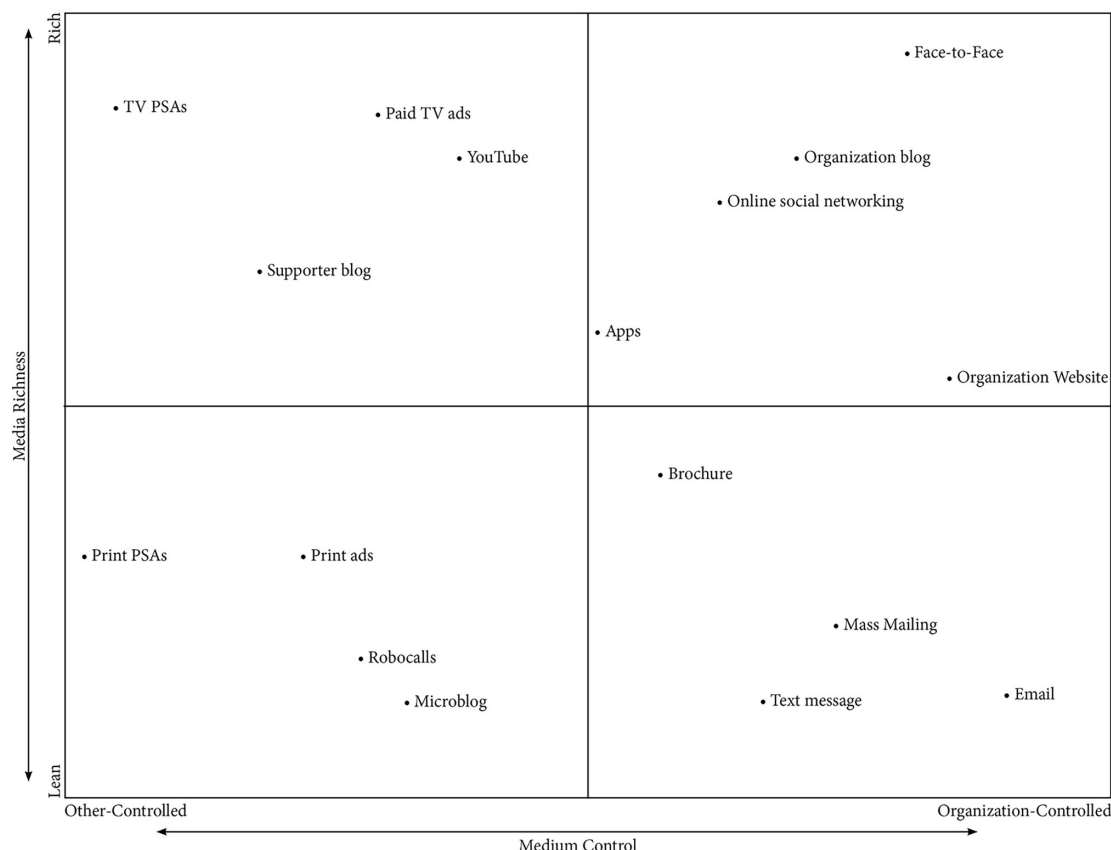


Figure 1. Media richness channel selection

through the Internet. In order to obtain an acceptable level of power, the sample size was calculated using an online computer program: National Statistical Service Sample Size Calculator (National Statistical Service, 2014). The programs have been shown to give the most accurate calculations for sample size (Keppel & Wickens, 2004). Using a confidence level of 95%, the population size of 18,801,301, a confidence interval of .05, the needed sample size was determined to be 385 for each treatment, for a total of 1,155 respondents (3 treatments x 385 = 1,155).

When conducting research, a probability sample is ideal (Baker et al., 2013); however, as technology changes the way in which people choose to interact and communicate with the world, the ways to involve them in research is subject to change as well (Ruggiero, 2000). This change also impacts research, in that researchers are tasked with the challenge of reaching populations using a variety of communication channels (Baker et al., 2013; Hovland, 1959; Ruggiero, 2000). As of 2013, only 15% of the population ages 18 to 30 did not have access to the Internet (Zickur & Smith, 2013) and landlines for random digit dialing (RDD) are not the norm for all households (Baker et al., 2013; Zickur & Smith, 2013). In fact, Baker et al. (2013) reported that relying on landlines for RDD might not be a true representation of a probability sample anymore because of the differences in individuals who have a landline and those who do not.

With that in mind, Internet research has become increasingly popular because researchers are able to reach millions of respondents by utilizing opt-in panels for research (Baker et al., 2013). Opt-in panels recruit individuals to participate in studies utilizing the Internet and computer-mediated survey software (Baker et al., 2013). This study utilized an opt-in panel determined by SSI, based on the sampling frame discussed above.

The design of the study was a true random experiment (Kirk, 2013), in which respondents only received one treatment and their attitudes toward the channel and perception of the message was

measured once. The treatments were pretested with a convenience sample of college students at a large, southeastern university because they were included in the population of Florida consumers. These respondents were used because they would not be included in the final sample. The pretest indicated the design of the study accessed respondents' attitudes about a channel and perception of the message; in turn, the research question and objective of the study were able to be answered using the design.

The researcher created the survey in Qualtrics and then sent the hyperlink for the instrument to the overseeing account manager at Survey Sampling International (SSI) to disseminate to the recruited respondents. The respondents were given 10 days to complete the survey. SSI sent an initial email recruiting respondents to participate in the study. This research was part of a larger, grant-funded study, which requested 1,155 responses for the quantitative measure from consumers. The research was funded by a specialty crop block grant by the U.S. Department of Agriculture and the Florida Department Agriculture and Consumer Services. SSI continued to recruit respondents to take part in the study until 1,155 usable responses were obtained. The completed responses were collected over a period of five days. SSI ensured respondents were only sent one email opportunity to participate in the study and utilized tracking software to prevent users from completing the survey more than once. Within the instrument, the respondents were given directions and the researcher's contact information.

After collecting the data from the Qualtrics survey, the data were analyzed using SPSS[®] 22.0. The researcher completed an exploratory analysis of the data to check the quality of data prior to a more in-depth data analysis (Kirk, 2013). Then respondents' demographic information was analyzed for frequencies. The data were also weighted using the 2010, the most up-to-date, data from the U.S. Census Bureau for the state of Florida's demographics. The data were weighted on the demographics of race, ethnicity, gender, and age. After verifying the data, the researcher conducted an analysis of variance to answer the study's hypothesis. To ensure internal consistency, a Cronbach alpha coefficient of reliability was calculated. The scale for perception of message had a Cronbach's Alpha of .903 with six items. The scale used to measure attitude toward the media channel used five items and had a Cronbach's Alpha of .908.

Results and Findings

To test and answer the research objective of this study, the three different treatments of the media channel and the questionnaire were taken by a total of 1,794 respondents; however, 1,122 respondents completed the survey, for a participation rate of 62.5%. Respondents did not complete the survey and were removed from the data set because they chose not to participate in the study ($n = 84$), were not over the age of 18 ($n = 3$), did not live in the state of Florida ($n = 15$), had not purchased blueberries in the last three years ($n = 247$), did not pass the first quality check measure ($n = 74$), did not pass the second quality check measure ($n = 149$), or were not able to see the treatment ($n = 100$). Of the respondents who completed the instrument, 410 (36.5%) were given the print treatment, 392 (34.9%) were given the video treatment, and 320 (28.5%) were given the Website treatment.

The respondents were asked to provide their demographics for gender, age, race, ethnicity, and type of residency. Five hundred and ninety two (52.8%) were female, and 530 (47.2%) were male. Respondents ranged in age from 18-19 years of age accounting for 16 (1.4%) respondents, 150 (13.4%) were between 20-29, 157 (14.0%) were between 30-39, 160 (14.3%) were between the ages of 40-49, 253 (22.5%) were between 50-59, 256 (22.8%) were between 60-69, 114 (10.2%) were between 70-79, and 16 (1.4%) respondents were 80 or more years of age. The respondents'

race ranged from 936 (83.4%) being White, 137 (12.2%) being Black, 46 (4.1%) being Asian, 18 (1.6%) being American Indian or Pacific Islander, and 5 (.4%) were of other race. Fifty three of the respondents (4.7%) identified themselves as Hispanic or Latino/a ethnicity, while 1,069 (95.3%) did not recognize themselves as Hispanic or Latino/a ethnicity (3). The type of residency the respondents lived in varied from 6 (.5%) living on farms, 107 (9.5%) living in rural areas that were not farms, 471 (42.0%) living in an urban area, 471 (42.0%) living in suburban areas, and 67 (6.0%) living in downtown areas (see Table 1).

Table 1. *Demographics Florida Census and sample for weighting*

	Florida 2010 Census pop.	Florida 2010 Census %	Sample n	Sample %
Gender				
Female	9,611,955	51.2	592	53.2
Male	9,189,355	48.8	530	46.8
Age				
19 and younger	4,048,641	23.9	16	1.4
20-29	2,407,985	12.8	153	13.6
30-39	2,288,785	12.2	160	14.2
40-49	2,653,989	14.2	160	14.3
50-59	2,542,709	13.5	253	22.5
60-69	2,094,483	11.1	256	22.8
70-79	1,384,221	7.4	114	10.2
80 or over	916,148	4.9	16	1.4
Race				
White	14,109,162	75.0	936	83.4
Black	2,999,862	16.0	137	12.2
Asian	454,821	2.4	46	4.1
American Indian	71,458	.4	18	1.6
Other	12,286	.1	5	.4
Hispanic				
Yes	4,223,806	22.5	53	4.7
No	14,577,504	77.5	1069	95.3
Total	18,801,310	100.00	1122	100.00

Since this research utilized a non-probability sample, the coverage error for the sample was analyzed. "Coverage error measures how well a sample frame covers the target population. Under ideal circumstances every member of the target population is listed in the sampling frame and therefore has a chance to be selected for the sample" (Baker et al., 2013, p. 78). To estimate the coverage error in this study, the study's sample demographics were compared to the 2010 Florida Census demographics (see Table 1).

A bipolar, semantic differential scale was used to measure the respondents' perception of the message. Semantic differential scales are used with at least five sets of adjectives to allow researchers to assess respondents' attitude on a given issue or topic (Osgood et al., 1978). The scale used to assess respondents' perception of the message used in this research contained six adjectives. All of the

responses in the index were reverse coded and one was equal to the negative adjective and five was equal to the positive adjective in order for higher numbers to indicate a more favorable attitude toward the message. The overall grand mean for the index, calculated by averaging responses from each set of adjectives together, was 4.44 ($SD = .63$). The reliability index would not have been increased if any item in the index were removed.

To assess respondents' attitudes toward the media channel, a single bipolar, semantic differential scale was used. The scale contained five sets of adjectives. The index's total reliability was $\alpha = .90$ and would not have increased with the removal of any of the items in the index. The grand mean for this index was 4.31 ($SD = .74$) and was calculated by averaging each of the adjective groups' responses.

The variable of the media channel was used as the treatment in this design. The variable was assessed and analyzed using the indices of perception of the message and attitude toward channel.

The respondents' past media use was measured using a scale adapted from Rosen, Whaling, Carrier, Cheever, and Rokkum (2013). The scale included questions about the respondents' use with specific communication mediums. Questions asked respondents to indicate how often they used the mediums on a daily basis (see Table 2).

Table 2. *Past media use*

	<i>Not at All</i> <i>n (%)</i>	<i>Less than One Hour</i> <i>n (%)</i>	<i>1 – 2 Hours</i> <i>n (%)</i>	<i>3 – 4 Hours</i> <i>n (%)</i>	<i>5 – 6 Hours</i> <i>n (%)</i>	<i>7 – 8 Hours</i> <i>n (%)</i>	<i>More than 8 Hours</i> <i>n (%)</i>
Watch TV	37 (3.3)	85 (7.6)	253 (22.5)	390 (34.8)	202 (18.0)	65 (5.8)	90 (8.0)
Browse Websites	23 (2.3)	318 (28.3)	413 (36.8)	211 (18.8)	68 (6.1)	40 (3.6)	46 (4.1)
Send/ Receive emails	6 (.5)	393 (35.0)	422 (37.6)	141 (12.6)	63 (5.6)	35 (3.1)	62 (5.5)
Send/ Receive phone calls	26 (2.3)	604 (53.8)	302 (26.9)	88 (7.8)	38 (3.4)	28 (2.5)	36 (3.2)
Participate in social networking	245 (21.8)	368 (32.8)	258 (23.0)	124 (11.1)	56 (5.0)	34 (3.0)	37 (3.3)
Send/ Receive text messaging	196 (17.5)	503 (44.8)	207 (18.4)	88 (7.8)	49 (4.4)	38 (3.4)	41 (3.7)
Read magazines/ books	115 (10.2)	454 (40.5)	370 (33.0)	116 (10.3)	34 (3.0)	13 (1.2)	20 (1.8)

The research objective for this study sought to determine the effect the interaction between the media channel and past media use has on attitude toward the channel, when controlling for perception of message. To answer this objective, the data file was split by treatment group and was analyzed using linear regression.

Respondents' past media use was not a significant indicator of respondents' attitude toward the print media channel ($F_{31, 411} = .57, p = .97$), video media channel ($F_{34, 403} = .70, p = .89$), or the Web media channel ($F_{30, 324} = 1.24, p = .18$); therefore, the researcher failed to reject the null hypothesis (see Table 3).

Table 3. *Interaction between media channel and past media use on attitude toward channel, controlling for perception of the message*

Variable	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Print Media Channel					
Perception of Message	183.967	1	183.967	1817.572	.000
Past Media Use	1.795	31	.058	.572	.970
Error	38.260	378	.101		
Total	7756.920	411			
Video Media Channel					
Perception of Message	157.695	1	157.695	1236.266	.000
Past Media Use	3.071	34	.090	.708	.890
Error	46.814	367	.128		
Total	7887.880	403			
Web Media Channel					
Perception of Message	84.726	1	84.726	480.773	.000
Past Media Use	6.553	30	.218	1.240	.188
Error	51.459	292	.176		
Total	6189.520	324			

The R^2 for each of the media channels was analyzed to understand the variance associated with each treatment group and the respondents' past media use. The print media channel had an $R^2 = .840$, the video media channel had an $R^2 = .79$, and the Web media channel had an $R^2 = .66$. Therefore, the print media channel accounted for 84%, the video media channel accounted for 79.4%, and the Web media channel accounted for 66.6% of the variance associated with the respondents' past media usage on their attitudes toward the channel, when controlling for perception of message.

The hypothesis proposed for this study was related to respondents' attitude toward the media channel and posited that subjects will have a more favorable attitude toward the media channel when exposed to the Web media channel than when exposed to the print or video media channels.

Upon analysis, respondents held a favorable attitude toward all of the media channels (see Table 4). The print media channel ($F_{18,410} = 115.70, p = .00$), the video media channel ($F_{1,392} = 4,812.76, p = .00$), and the Web media channel ($F_{17,320} = 3,960.22, p = .00$) were all shown to have a significant impact on respondents' attitude toward the media channel; therefore, the researcher failed to reject the hypothesis. This finding indicated that respondents' attitude toward the channel was predicted by any of the media channels.

Also, the R^2 for each of the media channels was analyzed to understand the variance explained by each of the media channels in the model. The print media channel had an $R^2 = .842$, the video media channel had an $R^2 = .796$, and the Web media channel had an $R^2 = .668$. Therefore, the print media channel accounted for 84.2%, the video media channel accounted for 79.6%, and the Web media channel accounted for 66.8% of the variance associated with the respondents' attitude toward the channel, when controlling for perception of the message.

Table 4. *Attitude toward media channel on perception of message when exposed to Web, video, or print media channel*

Variable	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Print Media Channel					
Perception of Message	201.166	18	11.176	115.700	.000
Error	37.768	391	.097		
Total	7740.920	410			
Video Media Channel					
Perception of Message	574.557	1	574.557	4812.769	.000
Error	44.529	373	.119		
Total	7650.160	392			
Web Media Channel					
Perception of Message	102.198	17	666.119	3960.226	.000
Error	50.797	302	.168		
Total	6102.520	320			

Discussion and Conclusions

The findings from this research can be applied both theoretically and practically to enhance and grow the body of knowledge in both research and applied communications. When applying the findings from this research, it is important to note the findings from this study are not generalizable to the entire population because a non-probability sample was used for data collection; however, this study can serve a stepping stone to guide future research related to communication media channels used to deliver information about the agricultural industry. Also, this study utilized the commodity of blueberries and the findings cannot be generalized to all commodities.

The individual's past media usage was not a significant indicator of respondents' attitude toward the media channel in this study, which is contradictory to Carlson and Zmud's (1999) model, in that an individual's experiences using a specific channel impact his or her perception of the channel. This finding implies there may be more variables that account for an individual's experience using a specific media channel than just time spent with that channel, as was measured in this study. Other variables that may be of interest would be technology confidence, technology familiarity and availability, and reliance upon technology. Also, individuals' psychographics and their self-identity may be relevant variables to include in future research to understand how media channels impact how individuals receive and process information about the agricultural industry delivered through various communication media channels.

Also, this research revealed that respondents' perception of message was a significant indicator of their attitudes toward the media channel, when the media channel treatment group was controlled. Therefore, no matter which media channel respondents received, their perception of the message directly impacted their attitudes toward the channel. This finding is key for professionals because it corroborates Carlson and Zmud's (1999) idea that how one perceives the message is as an important as the actual media channel used to deliver the information. From a theoretical standpoint, this finding opens many opportunities to add additional variables to the theory of media richness and

other media channel and perception models to determine the formation, power, and application of individual perceptions, in relation to an individual's attitude toward media channels used to deliver information. From a professional standpoint, this finding suggests that the message used by agricultural companies and organizations should receive more attention in its development and testing to ensure consumers are receptive to the message.

Recommendations

Based on the findings from this research, it is recommended that professionals not limit the types of media they use to reach consumers based on experience level or past behavior related to media channels. This recommendation is made because of the lack of significance found between the variable of past media use and attitude toward the media channel. Limiting certain media channels to specific target audiences may not be necessary, as indicated by this study. Therefore, the option of media channels available for professionals to use across their target audience can become more comprehensive. However, it should be noted the respondents of this study completed the questionnaire via the Internet, and therefore are inherently different than those consumers not comfortable using the Internet. This is a limitation of the study and should be considered. Future research should be conducted to determine if this finding holds true in other methods of data collection.

This research also indicated none of the media channels (print, video, or Web) had more influence on respondents' attitude toward the media channel than another. This finding is of importance to professionals because this allows the company or organization to use what ever media channel is most accessible for them to reach their target audience; however, it is recommended that more attention be given to how that specific audience perceives the message delivered. Future research should be conducted to determine if this finding holds true among other populations and with the use of other communication technologies, such as smartphones, tablets, etc., as research has shown that people are using technology on an ever-changing basis (Liu & Shrum, 2002; McQuail, 2010). This study showcases the importance of the message and it is recommended for practitioners to conduct message tests prior to launching a new campaign to their audience.

For research in this area in the future, studies should be conducted that look at testing other modes of communication technology for delivering messages about the agricultural community. The results from this study can only be applied to print, video, and Web media channels. Future research should look at derivations of these media channels as technology broadens these channels' capabilities. For example, future research should be conducted to understand if there are any differences in how consumers' perceive messages when the message is delivered through a static Website versus an interactive Website. In the future, different levels of interactivity of Websites may lead to different findings of how consumers receive and process a message because of having the Internet available for additional information relevant to their lives and the content of the message. As Liu and Shrum (2002) predicted, consumers are using technology in all facets of their lives and this includes how they receive and process information about the agricultural industry.

Also, video advertisements should be studied to determine if any difference lies in how consumers perceive a message delivered through a T.V. video advertisement or a social media video. Similarly, print advertisements are shifting to include additional information through Websites and social media accounts. Research focused on what types of information consumers seek after receiving a message about the agricultural industry would be beneficial for directing future research efforts and practical marketing efforts of professionals in the field.

Based on this research, even though consumers are embracing new and innovative communication

technologies to receive information, the message delivered through those technologies may be more powerful.

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Prince Farming Takes a Wife: Exploring the Use of Agricultural Imagery and Stereotypes on ABC's *The Bachelor*

Annie R. Specht and Brooke W. Beam

Abstract

The 19th season of ABC's The Bachelor stars Chris Soules, an Iowa farmer who is pursuing a wife. Soules appears to exhibit all the qualities of a gentleman farmer desired by the contestants: good looks, kindness, strong family values, and courteous manners. However, research of previous reality television programs has concluded negative views of agricultural lifestyles typically are present. The Bachelor aired during prime-time television hours and exposed millions of viewers to agricultural imagery, which is why an analysis of this season is important to agricultural communicators. This qualitative discourse analysis examines the representation of agriculture and rural communities through selected videos and episodes of The Bachelor that show Soules and the bachelorettes in agriculture-related settings. Previous research indicates entertainment media have impacted audience's perceptions of agriculture and reality television programming is adept at perpetuating stereotypes. Repeated exposure to stereotypes through media representation causes viewers to absorb those images into their social reality and, in turn, impacts their beliefs, attitudes, and behaviors toward the subject of those stereotypes. The Bachelor Season 19 contains both positive and negative agricultural stereotypes, including isolated small-town life, hard-working farmers, and "country" as a personality type. Farm-centric content is used to elicit laughs and to build romantic tension with the effect of minimizing the importance of agriculture. The researchers plan further investigation of the perceptual effects of the program's televised content and the related social-media conversation surrounding "Prince Farming."

Key Words

Reality television, stereotypes, social reality, *The Bachelor*, discourse analysis, and social semiotics

Introduction

In Season 10 of ABC's popular dating reality show *The Bachelorette*, television audiences met Iowa farmer Chris Soules, a 30-something agriculturalist whose "good looks and down-to-earth nice-guy demeanor" made him a favorite for the hand of Andi Dorfman (Yeo, 2015, para. 11). After Dorfman rejected his suit at the end of the season, Soules was approached to star in the nineteenth iteration of *The Bachelor* (Fleiss, Levenson, & Gale, 2002), the successful forerunner to *The Bachelorette*. In television previews, ABC dubbed Soules "Prince Farming" and revealed 30 women — instead of the show's usual 25 — would be vying for his affections through a series of challenges, group activities, and intimate dates (Barton, 2014; Rees, 2014).

The three-hour season premiere on January 5, 2015, garnered 7.7 million viewers, making ABC the most-watched network for adults 18-49 years of age that night (Futon Critic, 2015). The first

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episode was also the “most-social broadcast” of the night, generating nearly 250,000 tweets, according to the network (Futon Critic, 2015, para. 6).

Before the season filmed, ABC officials were concerned about finding applicants who were willing to move to Soules’s hometown of Arlington, Iowa, a farming community of less than 500 people. In an interview, *Bachelor* host Chris Harrison commented life with Soules would not “be all shucking corn. It isn’t like he doesn’t have a ton of money ... It isn’t like you are gonna move to the farm and never be heard from again” (Yeo, 2015, para. 17). Nonetheless, the fourth-generation farmer’s livelihood is dear to him: “I’ve never missed harvest ... for me to be gone for that was a big deal” (para. 19).

With Soules’s appearance on *The Bachelor* came hope the show would present an honest depiction of modern life in rural America. Des Moines Register reporter Donnelle Eller (2015) wrote, “Even playing a minor role, Iowa — and agriculture — could get exposure to millions of viewers ... watching as the corn and soybean grower whittles down his wannabe wives week by week” (para. 4). Soules expressed his desire to “change people’s perceptions about what life is like on a farm,” stating, “I think I’ve been able to bring to light that agriculture is not big, corporate farming. It’s families running operations that are very complex” (Eller, 2015, para. 9).

Agriculture’s previous forays into reality television (RTV) have been less than constructive. In 2003, Twentieth Century Fox released a reality program called *The Simple Life*. Starring socialites Paris Hilton and Nicole Richie, the show was billed as a real-life reworking of Green Acres. Fox developed the premise as a way to “do comedies outside of the traditional sitcom format” (Ryan, 2003, para. 7). The first season follows Hilton and Richie’s exploits in rural Altus, Arkansas, as they work on a dairy farm, pen cattle at a livestock auction barn, and waitress at a Sonic fast-food restaurant. According to Nielsen Media Research, 13 million viewers watched the show’s first episode, dominating its 8:30-9:00 PM ET timeslot in a number of key demographics (Reality TV World staff, 2003).

In 2008, the CW released a “rural spin on *The Bachelor*” called *Farmer Wants a Wife* (Pennington, 2008, para. 4). The Minneapolis Star Tribune called the show “an interesting look through the pop culture prism at rural America, which has historically veered from the yokel Ma and Pa Kettle to the melodramatics of 1980s farm crisis movies” (“Goodbye,” 2008, para. 7). In a pre-show interview, Missouri native Matt Neustadt said, “The stereotype still pops up that farmers are uneducated hicks ... Tell someone you’re a farmer and they may think they know about you right away — plows, cows and sows. Not many people are aware of the business and science of farming today” (Pennington, 2008, para. 26). Despite its star’s pleas for accuracy, the show concocted much of its agricultural content, renting a farm and livestock for filming (Neustadt’s family raises only grain crops) and arranging trials like milking goats and gathering eggs. In a critical review, the Star Tribune (“Goodbye,” 2008) opined, “With farming at the center of energy, environmental and even foreign policy debates putting the back 40 on the front page, there’s room for a more nuanced portrayal of farmers than *Farmer Wants a Wife*, which may make some viewers yearn for the golden age of *Hee Haw*” (para. 9). This study was undertaken to determine if *The Bachelor* would offer audiences a more realistic portrayal of today’s agricultural industry compared to its reality-on-the-farm predecessors.

Literature Review

Social Construction of Reality

Media scholars have long argued film, television, and other communication channels play a major role in the social construction of reality (Adoni & Mane, 1984; Gamson, Croteau, Hoynes, & Sasson, 1992; Gerbner & Gross, 1976). Adoni and Mane (1984) describe three types of social reality:

objective, symbolic, and subjective. Objective social reality is that in which the individual exists, whereas *symbolic social reality* is the expression of objective reality (art and literature). In tandem, the two create *subjective social reality*, the individual's own perception of the world and the basis for his or her social actions. Symbolic social reality in the media age is complicated by what Gamson and colleagues (1992) call simulacra, substitutions “for a reality that has no foundation in experience” but that nonetheless have great power to influence values, ideologies, and beliefs (p. 374).

According to McQuail (1972), mass media shape the collective consciousness by “organizing and circulating the knowledge which people have of their own everyday life” (p. 13). Social learning theory posits repeated exposure to this mass-mediated “knowledge” helps individuals develop schemata, or cognitive structures used to organize knowledge about particular stimuli (Fiske & Taylor, 1991 ; Riddle, 2010; Wright, et al., 1995). These cultural stimuli include crime (Cavender & Bond-Maupin, 1993; Robbers, 2008); race (Coltrane & Messineo, 2000); gender and gender roles (Coltrane & Adams, 1997; Kalof, 1993); and even occupations (Wright et al., 1995).

Reality Television (RTV)

Reality television offers researchers an especially intriguing opportunity to study fabricated realities and their influence on audiences' perceptions of the world around them. The genre itself is difficult to classify (Nabi, Biely, Morgan, & Stitt, 2003): “The term ‘reality television’ is used to refer to a diverse array of programming that often mixes various types of television programs such as game shows, documentaries, and nonfiction dramas” (Egbert & Belcher, 2012, p. 409; Mittell, 2004). The online television repository TVTropes.org (“Reality TV,” n.d.) identifies 13 subgenres of RTV programming, including documentary-style programs (*Duck Dynasty*, *The Real Housewives*), talent searches (*American Idol*, *Top Chef*), reality game shows (*Survivor*, *The Amazing Race*), and dating shows (*The Bachelor*, *The Bachelorette*). Some scholars even identify news programs like *America's Most Wanted* as RTV (Cavender & Bond-Maupin, 1993).

Kerrigan (2011) describes the problematic nature of reality programming: “All manifest a cross-fertilisation of genres, yet ‘reality’, this slippery term no social scientist is comfortable with, is still always portrayed as a legitimising social ‘anchor’” (p. 17). As Kerrigan indicates, the “realities” contained in these programs are held to be authentic, but reality shows are cast by producers, edited for maximum entertainment value, and contain contrived scenarios that echo Gamson's simulacra more than objective reality (Bottinelli, 2005; Egbert & Belcher, 2012; Rose & Wood, 2005; Tyree, 2011). Viewers may be unaware of the behind-the-scenes manipulation of RTV content: “Because the programs are not scripted and do not employ directors, per se, viewers may draw conclusions about the competitions as if contestants were unaware that anyone was watching, let alone filming” (Denham & Jones, 2008, p. 80).

Research suggests the simulated reality presented in RTV programs has powerful effects on viewers' attitudes, beliefs, and behaviors. Several studies have been undertaken to investigate the impact of weight-loss competitions on body image and weight bias. Domoff and colleagues (2012) found young people exposed to as little as 40 minutes of *The Biggest Loser*, a popular program that emphasizes rapid and extreme weight loss, reported significantly more negative attitudes toward obese individuals than those who did not watch the show. Markey and Markey (2010) described a positive correlation between individuals' — typically young women — interest in cosmetic surgery and their impressions of reality programming focused on improving one's appearance (in this case, the program *Extreme Makeover*).

Reality Television and the Perpetuation of Stereotypes

Some media-effects researchers view the ubiquity and popularity of primetime reality television programs with trepidation. RTV content derives much of its audience appeal from broad sociocultural stereotypes. Show producers “sometimes cast certain contestants precisely because those contestants satisfy a stereotype” (Denham & Jones, 2008, p. 79). Rose and Wood (2005) found RTV viewers process show participants as both “characters” within the confines of their respective programs and as “people like them,” conflating the participants’ exaggerated personae with their real-world selves. This blurring of lines between objective reality and symbolic reality may lead to the extension of stereotypes beyond the TV screen.

Tyree (2005) studied the representation of African Americans in RTV. In a textual analysis of nine RTV programs, the author established the few black participants generally conformed to at least one emerging stereotype (e.g., “oreo,” “angry black woman”) or historical stereotype (“Uncle Tom,” “Sambo”). Tyree concluded RTV “accentuated situations that reinforced cultural codes and stereotypes” (p. 408), a precarious premise given the cultural clout ascribed to reality programming.

Stereotypes of other marginalized groups exist in RTV. Agricultural communications researchers have critiqued *The Simple Life* for its broad portrayals of rural communities and agricultural production. Ruth, Lundy, and Park (2005) examined *The Simple Life* using focus groups. The participants — college students — felt the show unrealistically portrayed agriculture as an easy occupation and found the stars’ inability to perform simple tasks unbelievable. Participants agreed the show supported negative stereotypes of rural Americans as “backwoods” and “lower class” (p. 28). Further discussion revealed participants themselves viewed agriculturalists as “farm people that live in a population of 800 ... they might not even get the reception to watch TV there” (p. 29).

In a visual analysis of the same program, Specht (2013) found imagery used in *The Simple Life* also supported stereotypical perceptions of agriculture as green fields, dirt roads, and backward people: “*The Simple Life* ... [conforms] to the basic tenets of the pastoral ideal but transform the agrarian landscape into an antediluvian and eccentric backwater” (Specht, 2013, p. 257). These broad portrayals of racial, ethnic, socioeconomic, and demographic groups reinforce many of the largely negative perceptions propagated by mass media outlets.

Purpose of the Study

In 2012, less than 2% of the United States population was directly tied to agricultural production; therefore, it is not likely a majority of Americans were aware of the reality of agricultural representations (EPA’s Ag Center, 2012). Mass media have become readily available for Americans to view, and according to the W. K. Kellogg Foundation:

American mass media have played a significant role in building and decorating these frames ... More recent pop culture products like television series *The Waltons* and *Little House on the Prairie*, along with cinematic hits like *Places in the Heart* and *The River*, have presented warmer, more personal tales of rural Americans overcoming adversity and upholding values. Even fluff like *Petticoat Junction*, *Green Acres*, and the *Dukes of Hazzard* have played a role in our collective associations with rural America. (2002b, p. 1)

Representations of the agricultural industry and rural communities in mass media, no matter the format of the media, form an impression on the non-agricultural viewer. Although *The Bachelor* primarily focuses its content on the romantic exploits of Chris Soules and the 30 bachelorettes he

courted, an underlying theme connected this season of *The Bachelor* to Chris Soules's background as a farmer from Iowa.

The purpose of this study was to explore the symbolic social reality of agriculture in the public consciousness, represented by audiovisual content gleaned from *The Bachelor* (2015). The study was intended as a broad examination of agricultural images and themes in early Season 19 episodes, the results of which will serve as a baseline for future research into *The Bachelor*'s depiction of and attendant attitudes toward agriculture and rural agrarian life. Three research questions were developed to guide the researchers in their endeavors:

- RQ1: How does *The Bachelor* Season 19 depict agriculture and rural life through audiovisual content?
- RQ2: How are traditional stereotypes of agriculture and rural life represented in *The Bachelor*?
- RQ3: What overarching themes emerge in *The Bachelor*'s portrayal of agriculture and rural life?

Methodology

Text Selection

The researchers conducted a social-semiotic discourse analysis of episodes and video clips from *The Bachelor*. Five texts that contain agricultural references and images were chosen for examination: three full episodes and the season's promotional trailer (see Table 1). The content was accessed during both live broadcasts and on ABC's official website for the program.

Table 1

Details and Summaries of Selected Texts from The Bachelor

Title ¹	Length	Summary ¹	Purpose
"Week 3: Guest Host Jimmy Kimmel"	1:24:43	Jimmy Kimmel guest hosts and tries to help guide Chris' search for love.	Season 19 Episode 3
"Week 2: Tractor Race"	1:24:44	An eliminated bachelorette pleads for a second chance; six women join Chris for a pool party.	Season 19 Episode 2
"Season Premiere: Limo Arrivals"	2:05:44	Chris Soules, a wealthy businessman and farmer from Iowa, meets 30 bachelorettes.	Season 19 Episode 1
" <i>The Bachelor</i> 2015 Trailer"	4:58	Bachelor Chris Soules has a long journey ahead of him on <i>The Bachelor</i> 2015. Intense romance, lots of sweet moments, and buckets of drama await as he continues his quest to find the love of his life. Here's a look at what to expect from the rest of the season.	Promotional trailer for Season 19

^aOfficial titles and summaries for each episode or clip were taken from *ABC.com/TheBachelor*. ^bEpisode length is based on online runtimes without traditional television commercials.

Social Semiotics and Discourse Analysis

A subset of traditional semiotic — or sign-based — research, social semiotics allows the researcher

to situate textual artifacts within a specific sociocultural context while at the same time taking into account the researcher's own perspective as an element of the interpretive act (Chandler, 2007; Iedema, 2001; Van Leeuwen, 2005). Social semiotic codes classify and frame relationships among meanings, their realizations, and their contexts as viewed through the lens of the researcher (Bernstein, 1981; Thibault, 1991).

Discourse analysis, a subset of qualitative research described by Krippendorff (2004), examines the reproduction of social phenomena within texts. For this study, the researchers investigated the visual and thematic representation of agriculture in *The Bachelor*. Together, the research team identified the specific clips for use in the study; separately, they examined each clip for specific instances of agriculture-related content using close-reading techniques (More, n.d.). Close reading is the critical consumption of a text that involves detailed note-taking and reflexive questioning of the reader's interpretation of key narrative, thematic, or stylistic features.

The researchers established *a priori* a typology of such elements to examine, including the appearance of livestock, crops, farm equipment, and the participants' wardrobes. Narrative elements, like dialogue and music, were transcribed. The researchers also noted any agricultural stereotypes identified in prior research (Kellogg Foundation, 2002b; Ruth, Lundy, & Park, 2005; Specht, 2013) that appeared in the content. Following Lincoln and Guba's (1985) recommendations, periodic crosschecks were conducted throughout the coding process to ensure study dependability. Following their initial individual analyses, the researchers discussed their findings and defined themes that emerged from the data. The researchers compared the themes found in the media and previous research to determine what were acceptable stereotypes for *The Bachelor*. Thick description and direct transcriptions are included in the findings to support the transferability of the study's outcomes and conclusions.

Contextualization

Social-semiotic discourse analysis relies on the disclosure of the researchers' experiences with and beliefs and attitudes toward the subject matter (McKee, 2001). The researchers used their personal experiences with agriculture to inform their analysis of agricultural imagery and themes. Both researchers were raised in rural areas on farms: one on a small dairy farm and the other on a large grain operation. Both earned Bachelor of Science degrees in agriculture from land-grant institutions, and each holds at least one advanced degree in a social-scientific agricultural field.

Findings

RQ1: Audiovisual Depictions of Agriculture and Rural Life *The Bachelor* Season 19

Agricultural imagery is abundant in *The Bachelor*, especially in Season 19's first episode: Roosters crowing at dawn, lush rolling fields of Iowa corn and soybeans (see Figure 1), and an idyllic rural hometown where people know their neighbors bring to mind *The Andy Griffith Show's* Mayberry. Cattle, tractors, and picturesque farmsteads adorn the countryside during abundant aerial views of Arlington, Iowa, Soules's hometown. Sunflowers and bales of straw frequently appear in the background of scenes to remind the audience the bachelor has rural roots and is not the suit-and-tie-wearing gentleman they view weekly, taking beautiful women on dates with private Gulfstream jets, helicopter tours of the Grand Canyon, or wedding-crashing in California vineyards.



Figure 1. Chris Soules, standing in a soybean field, looks off into the distance on his family's 6,000-acre farm in the first episode of *The Bachelor* Season 19.

Jimmy Kimmel, a late-night comedian for ABC, plans the dates for the third episode of *The Bachelor*, and he builds an image for the bachelorettes of their prospective husband. Kimmel states Soules has “cows to milk and pigs to slop and whatnot. He’s a real farmer.” Kimmel creates a farm-themed obstacle course (the “Hoedown Throwdown”), which gives the bachelorettes and viewers a taste of the rural lifestyle, complete with rusty farm equipment, a “Farmer Crossing” road sign, and the “cuteness and misery” of chasing pigs and milking goats by hand. Soules laughs off most of the challenges, saying, “Drinking goat milk right off the teat is not important to me, but if she can’t shuck some corn or get her hands a little dirty, she’s not for me.” Kimmel also asks Soules if there were “people on the farm, or just animals” when referencing Soules’s manners.

The notion of farm life does not deter one contestant, Kaitlyn, who previously dated a dairy farmer and seems to think Soules has a relatively easy life. “I have dated farmers,” she tells Soules and Kimmel. “They were legit, like, cow farmers ... They had to, like, get up at 6 every morning and milk cows.”

RQ2: Representations of Traditional Stereotypes of Agriculture and Rural Life

Both positive and negative stereotypes of agriculture and rural Americans are apparent in *The Bachelor*. Chris Soules is described by both the show’s host and the contestants as a charming, caring, kind, and genuine individual who would be the ideal man to take home to meet a prospective wife’s family. He comes from a self-proclaimed “heritage of high-quality farmers” and can perform laborious chores on the farm, such as shoveling corn in a grain bin with the assistance of a sweep auger (see Figure 2). In the first episode, Soules describes his hometown as “slow paced, yet awesome quality of life.”



Figure 2. Chris Soules is shown shoveling grain into a sweep auger in a grain bin on his family's farm in Arlington, Iowa, as shown in the first episode of *The Bachelor* Season 19.

The Bachelor employs less positive stereotypes of agriculture and rural life to increase the entertainment value of the program. Several contestants make references to “being country,” generally in competitive situations. When tasked with racing tractors down a Los Angeles street in Episode 2, *Bachelor* hopeful Tandra states, “I’m gonna floor that tractor, and we’ll see how country it’s gonna get.” The descriptor “country” in this context implies an aggressive, uncouth nature and a lack of civility toward other challengers. In other situations, the stereotype is softened. During the season premiere, Tara, a “sport-fishing enthusiast,” arrives on set wearing a pink plaid shirt, cutoff jean shorts, and cowboy boots to differentiate herself from her gown-wearing competitors (see Figure 3). “I wanted to show you that you can take the girl out of the country, but you can’t take the country out of the girl,” she explains. “Chris got to see the real me — yeehaw!”



Figure 3. In Episode 1, Tara arrives in an outfit that suits her “country” personality.

RQ3: Overarching Themes in The Bachelor's Portrayal of Agriculture and Rural Life

Agricultural images and other narrative content are typically used for two purposes in *The Bachelor*: comedy and sex. Humor is educed by the awkward situations the city-dwelling bachelorettes endure: racing tractors in low gear through downtown Los Angeles; participating in the dubiously named “Hoedown Throwdown” obstacle course (complete with shucking corn, collecting and frying eggs, milking goats, shoveling composted manure, and catching piglets); and dressing up like “American Gothic” multiple times throughout the season. A soundtrack of twangy, banjo- and fiddle-driven country music heightens the comedic nature of these farm-related challenges and scenarios. The overall effect is cartoonish and silly, positioning both the contestants and rural life as the focus of audience ridicule.

The Bachelor also uses agriculture to enhance the romantic aspects of the show as well as the sexuality of the participants. In the Season 19 trailer, Soules and a contestant are shown walking hand-in-hand through a sunset-lit field; another moment captures the bachelor and a different woman taking a motorcycle ride through the Iowa countryside. Soules is also shown striding through a snow-covered field, staring broodily into the distance like an agrarian Mr. Darcy. Sexualization is reoccurring, ranging from suggestive farm-themed pick-up lines in Episode 1 — Kaitlyn memorably invites Soules to “plow ... [her] field” — to wardrobes of revealing bathing suits and cowboy boots for the bikini tractor race in Episode 2 (see Figure 4). Throughout the show, multiple bachelorettes wear bib overalls, flannel shirts, and Daisy Duke shorts that leave little to Soules’s imagination.



Figure 4. In Episode 2, the bathing-suit-clad bachelorettes compete for a date with Chris Soules by racing tractors down a Los Angeles street.

Discussion

Despite ABC’s enthusiasm for Chris Soules’s rural roots, *The Bachelor* handles its star’s background with an uneasy mix of respect and condescension. The positive aspects of rural and agrarian life — beautiful scenery, a small-town lifestyle, and values-driven, hardworking farmers — are celebrated by show participants. However, these desirable qualities are offset by the superficial manner in which production agriculture is portrayed.

The terms Soules uses to describe his family and hometown are congruent with the perception

Americans have with of rural, agrarian lifestyles according to previous research studies. Americans view family farms as the representation of idyllic American values by being “hard working and self sufficient” (W. K. Kellogg Foundation, 2002a, p. 5). The Kellogg study also found Americans believe rural communities are an ideal location to raise a family; however, residents of rural communities are “plagued by lack of opportunities, including access to cultural activities” (W. K. Kellogg Foundation, 2002a, p. 1). Soules helps fuel this perception by stating that it would take him 25 years to meet 30 bachelorettes in rural Iowa.

Americans also are trained by media outlets to relate agricultural or rural communities with terms such as “pastoral, peaceful, picturesque, quite, sleepy, quaint, Currier & Ives and Norman Rockwell” (W. K. Kellogg Foundation, 2002b, p. 21). The imagery of Grant Wood’s “American Gothic” was recreated to show Soules’s simplistic lifestyle in Arlington while representing the American perception of how agriculturalists live. The painting has been used before in entertainment media: In addition to its appearance in Episode 3 of *The Bachelor* and an episode of *The Bachelorette*, the iconic image was recreated in promotional materials for the film *Son In Law* (Basinger, 2005; Rash, 1993) (see Figure 5). As in *Son In Law*, *The Bachelor*’s Chris Soules attempts to transform a city slicker into a farmer’s spouse, and the show uses agriculture as a humorous prop to complicate the transition.



Figure 5. Clockwise from top left: “American Gothic” by Grant Woods; a promotional poster for *Son In Law*; Chris Soules and *Bachelor* contestant Carly; Soules and Jimmy Kimmel; and Soules with a fellow *Bachelorette* contestant.

Though the show makes some attempts to subvert the “backwoods” stereotypes of rural Americans found in previous reality shows — primarily through references to Soules’s good looks, fashion sense, and love for the trappings of city life — *The Bachelor* nonetheless conforms to the outdated interpretation of agriculture criticized in *The Simple Life* (Ruth, Lundy, & Park, 2005; Specht, 2013) and in *Farmer Wants a Wife* (“Goodbye,” 2008). In the third episode, Jimmy Kimmel tells the women,

“We’re going to put your farm skills to the test. If one of you were to wind up with Chris, you’re gonna have to work.” Instead of measuring the women’s suitability for farm life, important tasks, like milking dairy animals and cleaning pens, are lampooned for entertainment and are used as means of demoralizing the contestants.

This study demonstrates agricultural content on *The Bachelor* conforms to both the positive and negative stereotypes seen in previous entertainment-media portrayals. Continued propagation of these characteristics helps crystallize the public’s symbolic reality of food and fiber production and the individuals who undertake it, thus also potentially influencing their beliefs, attitudes, and behaviors toward agriculture (Adoni & Mane, 1984). The researchers note other interpretations of the content of *The Bachelor* are possible; however, through their social semiotic lens, these were the findings determined to be the most accurate based on the content of the episodes and the knowledge the researchers have of the agriculture industry.

Recommendations for Practitioners and Future Research

Agriculture-centered popular media events like *The Bachelor* Season 19 offer agricultural communications practitioners an opportunity to open a dialogue between the industry they serve and the audiences who view these programs. Television programming is often consumed in social environments: “In fact, the worth of a particular television program is often gauged according to the amount of social interaction it generates,” whether direct (“movie nights”) or indirect (post-viewing “water cooler” conversations) (Ducheneaut, Moore, Oehlberg, Thornton, & Nickell, 2008, p. 136; White, 1986). Engaging in these interactions, whether by hosting viewing parties or by engaging audiences in interpersonal or online discussions during and after the show, may help agricultural communicators better inform audience members whose interest in agriculture has been piqued by their attention to the program.

Practitioners can learn from the findings of this study about the recent representations of agriculture in reality television programming. Reality television programming has become an increasingly popular entertainment medium for Americans, and the episodes of *The Bachelor* were viewed by millions of people. Practitioners should be aware of the representations of agriculture in entertainment because for some consumers the agricultural information in these episodes may be the only agricultural education they receive. Mass media is readily available on demand for anyone with an Internet connection, and therefore, agricultural communicators need to be cognizant of entertainment representations to communicate effectively with the American public that is educated on agriculture through the digital silver screen.

As this study constitutes an introductory examination of early *The Bachelor* Season 19 episodes, the researchers plan to continue studying how the show depicts the industry. Close attention will be paid to the customary “home visits,” during which finalists travel to the bachelor’s hometown in hope of impressing his friends and family. A follow-up content analysis of the program’s treatment of Arlington and Soules’s family farm will be conducted. Further research into the social aspects of *The Bachelor* — namely, the social media content generated by viewers — also should be conducted as a means of gauging, in real time, the impact the show may be having on perceptions of agriculture and rural life. Findings from this study will be triangulated with popular press and social media posts to determine the public’s perception of agriculture in *The Bachelor* Season 19 in future studies. Prince Charming met Cinderella at a glamorous ball; Prince Farming, on the other hand, pursues his bride-to-be through televised challenges rife with agrarian humor. In the early going, *The Bachelor* Season 19 has provided RTV viewers a brief glimpse at real farm life, but the show also has reinforced

stereotypes previously represented in media portrayals of rural America. While audiences wait to see if Prince Farming will valiantly defend an accurate depiction of agriculture and rural life in future episodes, the history of reality television suggests the show could become a disheartening lagoon for agricultural image accuracy.

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Consumer Perceptions of Poultry Production: A Focus on Arkansas

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Abstract

Poultry production holds an important place in Arkansas economically and as a food source. The viability of poultry production ultimately hinges on consumer demand and the perceptions that drive their purchases. With this in mind, this study surveyed consumers to assess their perceptions of poultry production in Arkansas. The instrument used to survey consumers was created by the researcher and an expert committee at the University of Arkansas. Consumers were surveyed through direct communication at grocery stores in Northwest Arkansas. Data gathered from the study were analyzed using descriptive and correlational statistics. Consumers were uncertain as to whether or not conventionally produced poultry possessed unsafe levels of antibiotics and hormones ($M = 3.68$, $SD = 1.45$). Consumers also thought the majority of poultry farms in Arkansas were factory farms ($M = 4.15$, $SD = 1.37$). Consumers perceived organic poultry as a more healthy food than conventionally produced poultry ($M = 4.47$, $SD = 1.39$). Based on these results, specific recommendations were made to maintain the viability of poultry production in Arkansas. Marketing and communication efforts should be tailored to improve consumer understanding of antibiotic and hormone use in poultry production and the healthiness of conventionally produced poultry. Messaging and marketing should depict the reality of conventional poultry production, and agricultural communicators should work to improve logic and reason for combatting campaigns that misinform the public about agriculture. This research also highlights the need for further research to better understand the ways consumers develop perceptions of poultry production.

Key Words

Antibiotics vs. hormones, communications, consumer perceptions, marketing, and poultry production

Introduction

In Arkansas, poultry production is a valuable part of the state's economy and agricultural landscape. Without the presence of poultry production in the state, a substantial amount of the state economy would be gone, not to mention the substantial number of jobs that would also be taken away from the market (McGraw, Popp, & Miller, 2012). Just as any other sector of the agricultural industry, poultry production is at its core driven by consumers, who ultimately keep the industry alive through purchasing poultry products. At the present time, research shows the general public is losing agricultural literacy; that is to say, the public is less knowledgeable about the processes and industry that provide them with their basic nutritional needs (Colbath & Morrish, 2010; Frick, Birkenholz & Machtmes, 1995; Hess & Trexler, 2011). Therefore, it is important that as consumers become less familiar with agriculture in general (and in Arkansas, poultry production) industry and producers understand consumers' perceptions of the industry.

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Because poultry production is a key component to the economy of Arkansas, it is important that research be conducted to allow for a better understanding of consumer perceptions of poultry production. Recognition and adaptation to consumer opinion will assist with poultry production viability. The goal of this research was to identify consumer perceptions of Arkansas poultry production through descriptive survey methodology. This study allows for a clearer knowledge of consumer understanding of poultry production, which can be instrumental in sustaining poultry production as a vital part of the Arkansas landscape.

Literature Review

Arkansas is a national leader in poultry production, ranking second in broiler production and third in turkey production (Arkansas Division of Agriculture, 2015; Boehler, 2010). The poultry industry's reach makes it one of the most important parts of the agricultural economy and also a significant job creator in the state (McGraw et al., 2012). In 2010, the poultry production and processing sector in Arkansas contributed 37,343 jobs and \$1.8 billion in added value to the Arkansas economy (McGraw et al., 2012). By 2012, which was the most recent data during the time this article was published, the poultry industry in Arkansas provided 40,000 jobs and 40 percent of the total cash receipts in the state (Arkansas Division of Agriculture, 2015). Broiler production is in 53 of the 75 counties in the state and more than 1 billion broilers were raised in the state in 2012, which provided more than 6 billion pounds of poultry meat and \$2.82 billion during the year in production value (Arkansas Division of Agriculture, 2015).

There are three types of chicken enterprises: (a) egg production, (b) broiler production, and (c) replacement pullet production (Gillespie & Flanders, 2009). The poultry industry is designed in such a way that many of the larger companies, known as integrators, operate hatcheries, feed mills, and processing plants and contract with producers to raise animals for their organization (Boehler, 2010). These vertically integrated poultry firms are able to control all parts of the production, processing, and distribution processes. Some of the more prominent integrators in the state are Tyson Foods, Inc.; OK Foods, Inc.; Simmons Foods, Inc.; Cobb-Vantress, Inc.; and George's, Inc. (Boehler, 2010). Arkansas integrators have designed the production process to be geographically concentrated where all aspects of production are spatially located so as to enhance production logistics (Boehler, 2010).

Research has shown consumers have three major concerns about the safety of poultry products: (a) antibiotic residues, (b) hormone residues, and (c) food borne pathogens such as *E. coli* (Bruhn & Schutz, 2007; Donoghue, 2003; Verbeke & Viaene, 1999). Since approval by the Federal Drug Administration (FDA) in 1951, the use of antibiotics has been instituted in poultry feeding regimens to promote growth and prevent diseases (Jones & Ricke, 2003). In fact, over 30 antimicrobials are approved for use in U.S. feed for commercial broiler operations; these antimicrobials treat and prevent the spread of diseases like coccidiosis and allow for improved growth (Jones & Ricke, 2003). The National Antimicrobial Resistance Monitoring System has monitored the development of animal pathogen resistance in response to the use of antibiotics in poultry production since 1996, and the development of resistance patterns during the monitoring period has been relatively low and stable (Jones & Ricke, 2003).

According to Donoghue (2003), "the FDA and USDA provide extensive regulatory oversight to ensure the safety of our food supply" when referring to poultry production (p. 620). This is accomplished through a stringent, mandatory antibiotic approval process and through continued monitoring after antibiotics are introduced into the market. Federal monitoring reveals few, if any, violations in the amount or kind of antibiotic residues present in poultry tissues.

Brooks and Ellison (2014) surveyed a nationally representative sample of 1,039 U.S. consumers to determine their perceptions of the importance of seven production claims that commonly appear on meat and poultry product labels. In each product category (beef, pork and poultry), consumers rated the claim that “animals were not administered growth hormones” as being the most important claim. According to the researchers, “this was a particularly interesting finding in the case of chicken as the USDA prohibits the use of hormones in poultry already; whether consumers know this, however, is unclear” (Brooks & Ellison, 2014, p. 14). Research on the attribution of foodborne illnesses in the U.S. also noted that of the foods that serve as carriers for bacteria, chemicals, parasites, and viruses that cause foodborne illnesses poultry accounts for 9.8%, well below the largest attribution percent of 22.3%, which is attributed to leafy vegetables (Painter et al., 2013).

Along with the importance of the poultry industry to the state’s economy, studies also show chicken is one of the most affordable food products in not only Arkansas, but in the United States. As of 2007, the average annual per capita consumption of chicken was approximately 85 pounds, an increase of 115% since 1979 (American Meat Institute, 2009). Even though prices for poultry at the grocery store have increased over the years — approximately \$30 per capita from 1997 to 2007 — the increase has been significantly less than other meats like beef — which had nearly a \$75 per capita increase over the same time period (American Meat Institute, 2009).

The importance of poultry production in Arkansas requires that producers and consumers both possess at least a minimum level of knowledge about the processes and methods that constitute this industry. This level of knowledge is known as agricultural literacy, and it is vital to the relationship between producer and consumer (Frick et al., 1995). The National Research Agenda was revised in 2011 to guide research in agricultural education and communications and outlined six areas that serve as priorities for research. Priority area one of the National Research Agenda calls for a research emphasis in public and policy maker understanding of agriculture and natural resources; the agenda specifically calls for scientific focus in the area of “demonstrating the impact of agricultural literacy efforts on a variety of stakeholder behaviors including consumer behavior” (Doerfert, 2011, p. 8). Research focus in this area will ameliorate the negative impact associated with an uninformed population (Doerfert, 2011).

The issue of a public that is increasingly unaware of the processes that provide them with food is well researched. Much of the research about agricultural perceptions showed that consumers are losing literacy the farther they are generationally removed from the farm. Research noted those individuals who have any familiarity or contact with farming, including living in a rural area, are more aware and satisfied with agricultural practices (Boogard, Bock, Oosting, Wiskerke, & Van Der Zijpp, 2010; Frick et al., 1995). And as producers and consumers continue to be separated, tensions between the two parties will continue to grow (Wachenheim & Rathge, 2000). A study conducted with university students showed students held favorable views of food safety, but students in the agricultural programs held more favorable views than those students not in the agricultural programs (Terry & Lawver, 1995). Pense, Beebe, Leising, Wakefield, and Steffen (2006) found students in rural, suburban, and urban schools differed in their understanding of agriculture, namely students from rural schools were more knowledgeable than their urban/suburban counterparts. More current research by Hess and Trexler (2011) noted elementary students understand where their food comes from, but lack essential, necessary sub-concepts to allow them to develop schema related to agricultural and science benchmarks. Holloway (2004) saliently noted that public agricultural understanding plays a crucial role in how agriculture operates, affecting not only legislation, but consumption practices.

The arduous task of improving agricultural literacy may be improved by increasing media

coverage of agricultural issues (Lundy, Ruth, Telg, & Irani, 2006). Lundy and colleagues noted a diverse group of individuals attempt to communicate scientific topics to the public, including scientists, public information officers, and the media. One group specifically equipped to provide the public with agricultural information is agricultural communicators, and this group must be careful to create more convincing arguments that combat anti-agriculture campaigns that sway a public with a weak understanding of agriculture in the opposite direction (Goodwin & Rhoades, 2011). Research also noted a need for agricultural commodities to be more concerned with depicting reality than being entertaining during advertising efforts (Specht & Buck, 2014). Specht and Buck (2014) recommended “educating the public about current trends in animal husbandry while marketing products is a more responsible way to promote both the commodity and its producers” (p. 46).

Theoretical Framework

It is important to have an understanding of what drives consumers to be active in the market. The theory of reasoned action states human actions are guided by three considerations: (a) beliefs about the consequences of an action (behavioral beliefs), (b) beliefs about the normative expectations of others (normative beliefs), and (c) beliefs about the presence of factors that may promote or hinder the behavior (control beliefs) (Ajzen & Fishbein, 1980). Research conducted by Belleau, Summers, Xu, and Pinel (2007) that used the theory of reasoned action as a theoretical underpinning indicated attitude toward a product had the most influence on purchasing intention and media coverage of a product to increase knowledge could have potential positive impacts on consumer attitude for the product. Consumers who believe there will be negative consequences associated with eating poultry will be less likely to purchase poultry (McEachern & Schroder, 2002). Consumers with family and peers who do not eat poultry will also be less likely to purchase it. Finally, consumer behavior will be affected by consumer beliefs about the availability of poultry products in the area. Research also shows “women shoulder the majority of shopping responsibility” and the association between gender and shopping responsibility is especially high in regard to grocery shopping (Dholakia, 1999, p. 158). Consumers are also primarily divided into low-involvement and high-involvement groups; meaning, those consumers with a low-involvement mindset focus on tangible considerations (e.g. price and visual characteristics), while highly involved consumers consider intangible attributes when making purchases (e.g. safety, health, animal welfare, and biodiversity) (McEachern & Schroder, 2002).

Although a sufficient amount of research exists to show that the general public is becoming less agriculturally literate (Frick et al., 1995; Hess & Trexler, 2011; Wachenheim & Rathge, 2000), little research has been conducted to address consumer perceptions of specific areas of agriculture. Because agriculture is a consumer-driven industry, it is important producers and the industry understand the perceptions held by consumers as outlined in the National Research Agenda (Doerfert, 2011). This will allow for proactive marketing and educational activities tailored to inform consumers and to educate and overcome inaccurate information.

Purpose/Research Objectives

The purpose of this study was to understand consumers’ perceptions of the Arkansas poultry industry. Specific objectives were to:

1. Determine the perceptions of northwest Arkansas consumers about selected policies, procedures, and standards in the poultry industry;

2. Determine the perceptions of northwest Arkansas consumers' personal preferences and understanding of the poultry industry; and
3. Determine correlations between consumer perceptions and selected demographics.

Methods/Procedures

This study used descriptive survey methodology. The statistical analysis was also descriptive in nature and the instrumentation followed Dillman's (2007) Tailored Design method to ensure accurate question development and data collection.

The sample for this study was consumers in three select areas of Arkansas; namely, Bentonville, Fayetteville, and Springdale. A total of 353 respondents formed the sample asked to participate in the survey with 198 agreeing to participate. Participants were selected at random through direct contact at five different local chain grocery stores that were also selected at random from 10 stores present in these three cities. The researcher and an assistant directly distributed the survey on 14 different occasions between 26 February and 18 April 2013. For a majority of the occasions, surveys were administered between the hours of 4 and 6 p.m.; a few were conducted during the 1 to 3 p.m. time period. Participation in the survey was incentivized by offering individuals who responded the opportunity to enter a drawing for an iPad.

A printed survey instrument was developed based on a review of literature (Frick et al., 1995; Terry & Lawver, 1995; Wachenheim & Rathge, 2000). The survey consisted of three parts: (a) a section that assessed consumer perceptions of poultry production in Arkansas, (b) a section that assessed consumer perceptions of knowledge of poultry production and the industry, and (c) a demographic section.

Part I of the questionnaire contained 13 statements to assess consumer perceptions of selected aspects of poultry production. Seven of these statements assessed consumer perceptions of policies, procedures, and standards in the poultry industry. The remaining six statements in this section assessed consumer preferences and personal understanding of the poultry industry in Arkansas. Participants responded to each of the statements using a 1 to 6 Likert-type scale, where 1 = strongly disagree, 2 = disagree, 3 = moderately disagree, 4 = moderately agree, 5 = agree, and 6 = strongly agree.

Part II of the instrument contained statements and questions to assess respondents' perceived knowledge of poultry production in Arkansas. First, this section included the statement "I am very knowledgeable about poultry production practices" to assess how respondents perceived their knowledge of poultry production; answers followed the same scale as the previous perception statements. Next, respondents answered the question "Do you or does anyone in your immediate family work in poultry production?" with either a "yes" or "no" response. Finally, an open-response item asked respondents, "Of all 50 states, where does Arkansas rank in the total dollar value of poultry produced?"

Part III of the survey consisted of questions related to demographics of the surveyed participants. Questions about age, ethnicity (Native American, Black/African-American, Hispanic, Caucasian, Asian, other), gender, area of residence (farm, rural, suburb, city), and highest degree or level of school completed (12th grade or less, no diploma; high school graduate or GED; some college, no degree; associate degree; bachelor's degree [e.g. BA, BS, AB]; graduate or professional degree; don't know; refused) were all present on this part of the instrument.

Face and content validity of the instrument were assessed by a panel of five faculty members with expertise in survey research methods (two faculty) and poultry science (three faculty); these

instrument stability, the survey was administered twice (at a 14 day interval) to a convenience sample of 10 adults in the northwest Arkansas area. The agreement percentage between the first and second administrations was 80%, which was deemed to be acceptable (Gall, Gall, & Borg, 2006).

To collect data for this research, a researcher and a trained assistant directly administered surveys to consumers individually at local grocery stores in northwest Arkansas. After determining specific stores at which to administer the instrument, the researcher contacted the corporate offices of the grocery store chain and received permission to administer surveys to consumers at the chosen stores. Before administering the survey at each store location, the researcher informed the store manager that the researcher would be conducting surveying at a specific time. The researcher and an assistant spent approximately two hours administering surveys in each store during each session. Interviews were conducted near the meats or butcher section of the stores.

Data from the completed surveys were entered into an Excel spreadsheet and then imported into SAS® 9.3 (Carry, NC) for analysis using descriptive and correlational statistics. Open-ended responses were analyzed using open coding methods (Creswell, 2007; Glense, 2006; Strauss & Corbin, 1990).

Results/Findings

The survey methodology utilized in this study yielded quantitative data that fulfilled the stated objectives of the study. The findings are reported by objective.

Objective 1: Perceptions of policies, procedures, and standards in the poultry industry

Respondents were first asked about their perceptions of poultry production in Arkansas regarding policies, procedures, and standards in the poultry industry (see Table 1). Consumers moderately agreed that poultry was more affordable than beef or pork ($M = 4.81$, $SD = 1.09$). Consumers generally believed it was healthier to eat organically produced poultry than conventionally produced poultry ($M = 4.47$, $SD = 1.39$). Respondents moderately agreed most Arkansas poultry is grown on factory farms ($M = 4.15$, $SD = 1.37$). Consumers were unsure as to whether conventionally produced poultry contained unsafe levels of hormones or antibiotics ($M = 3.68$, $SD = 1.45$). Respondents disagreed poultry was the cause of most food-borne illness ($M = 2.21$, $SD = .99$). Consumers disagreed hormones and antibiotics were never given to poultry during production ($M = 1.91$, $SD = 1.05$; $M = 1.84$, $SD = 0.96$, respectively).

Objective 2: Perceptions of personal preferences and understanding of the poultry industry

Respondent perceptions were also assessed in regard to consumer preferences and personal understanding of the poultry industry in Arkansas (see Table 2). Overall, consumers agreed that poultry production has a positive effect on Arkansas ($M = 4.92$, $SD = 1.07$). Consumers moderately agreed poultry producers care about the welfare of the poultry they produce ($M = 4.01$, $SD = 1.41$). Consumers were unsure if poultry processing employed a large number of undocumented workers ($M = 3.93$, $SD = 1.36$). Consumers were unsure if farmers use humane production practices ($M = 3.81$, $SD = 1.42$). When asked about poultry production's effect on the environment, respondents moderately disagreed poultry production is harmful to the environment ($M = 2.90$, $SD = 1.30$). Consumers disagreed that if they lived in a rural area, they would like to live near a poultry farm ($M = 2.20$, $SD = 1.33$).

Table 1

Consumer Perceptions of Policies, Procedures, and Standards in the Poultry Industry and Relationships between Statements and Demographic Characteristics

Statement	<i>M</i>	<i>SD</i>	Relationships between Statements and Demographic Characteristics					
			Knowledge ^a	Industry Affiliation ^b	Age ^a	Area of Residence ^c	Education ^c	Gender ^b
Poultry is more affordable than beef or pork.	4.81	1.09	-0.01	0.11	0.21**	0.04	0.00	-0.04
It is healthier to eat organically produced poultry than conventionally produced poultry.	4.47	1.39	-0.06	0.05	-0.12	-0.05	-0.09	-0.04
Most Arkansas poultry is grown on factory farms.	4.15	1.37	0.01	-0.10	-0.03	0.06	-0.04	-0.04
Conventionally produced poultry contains unsafe levels of hormones or antibiotics.	3.68	1.45	0.15	-0.02	0.08	0.02	-0.09	0.19**
Eating poultry is the cause of most food-borne illness.	2.21	0.99	0.04	-0.05	-0.12	-0.09	-0.07	0.15*
Hormones are never given to poultry.	1.91	1.05	0.13	0.07	-0.07	0.05	-0.12	-0.15*
Antibiotics are never given to poultry.	1.84	0.96	0.03	0.05	0.08	-0.10	-0.11	-0.12

^aPearson Product-Moment Correlation; ^bPoint Biserial Correlation; ^cSpearman Rank-Order Rho Correlation.

Note. *N* = 198; Responses were coded as 1 = Strongly Disagree, 2 = Disagree, 3 = Moderately Disagree, 4 = Moderately Agree, 5 = Agree, 6 = Strongly Agree; Responses for Industry Affiliation were coded as 1 = No, 2 = Yes; Responses for Area of Residence were coded as 1 = Farm, 2 = Rural, 3 = Suburb, 4 = City; Responses for Education were coded as 1 = at least high school graduate, 2 = some college, no degree or associate degree, 3 = Bachelor's degree or higher; Responses for Gender were coded as 1 = Male, 2 = Female

* $p < .05$; ** $p < .01$

Table 2

Consumer Perceptions and Understanding of the Poultry Industry and Relationships with Demographic Characteristics

Statement	<u>Relationships between Statements and Demographic Characteristics</u>							
	<i>M</i>	<i>SD</i>	Knowledge ^a	Industry Affiliation ^b	Age ^a	Area of Residence ^c	Education ^c	Gender ^b
Overall, the poultry industry has a positive effect on Arkansas.	4.92	1.07	0.04	0.09	0.10	-0.10	-0.05	-0.11
Poultry producers care about the welfare of the poultry they produce.	4.01	1.41	-0.04	0.16*	0.08	-0.03	-0.08	-0.03
Poultry processing employs a large number of illegal immigrant workers.	3.93	1.36	0.08	-0.07	0.003	0.05	-0.21**	0.11
Poultry farmers use humane production practices.	3.81	1.42	0.03	0.17*	0.11	-0.04	-0.09	0.04
Poultry production is harmful to the environment.	2.90	1.30	-0.03	-0.11	-0.03	0.11	0.15*	0.12
If I lived in a rural area, I would like to live near a poultry farm.	2.20	1.33	0.11	0.18	-0.07	-0.17	-0.14	-0.07

^aPearson Product-Moment Correlation; ^bPoint Biserial Correlation; ^cSpearman Rank-Order Rho

Note. *N* = 198; Responses were coded as 1 = Strongly Disagree, 2 = Disagree, 3 = Moderately Disagree, 4 = Moderately Agree, 5 = Agree, 6 = Strongly Agree; Responses for Industry Affiliation were coded as 1 = No, 2 = Yes; Responses for Area of Residence were coded as 1 = Farm, 2 = Rural, 3 = Suburb, 4 = City; Responses for Education were coded as 1 = at least high school graduate, 2 = some college, no degree or associate degree, 3 = Bachelor's degree or higher; Responses for Gender were coded as 1 = Male, 2 = Female

p* < .05; *p* < .01

After respondents were assessed regarding their perceptions of poultry production, they responded

to the section of the survey that assessed their perceived knowledge of the poultry industry. Of the consumers surveyed (32.8%) moderately agreed they were knowledgeable about poultry production processes. The majority of consumers surveyed did not work in the poultry industry, nor did any members of their immediate family (81.7%). Most respondents ranked Arkansas 10th or higher in terms of the total dollar value of poultry produced.

Objective 3: Respondent demographics and demographic/perceptions correlations

The mean age of respondents was 49.5 ($SD = 16.98$) and ranged from 19 to 92 years. Most consumers surveyed lived in an urban area (54.3%). In regard to education level, 12.2% of respondents possessed a high school education or less, 44.4% of respondents had some college but no degree or an associate degree, and 43.4% of respondents possessed a bachelor's degree or higher. The majority of respondents were female (65.2%).

All statistically significant correlations between respondent demographic characteristics and perceptions of the poultry industry were described as low, using the descriptors suggested by Davis (1971). As shown in Table 1, age was positively ($r = .21$) correlated with agreement that poultry is more affordable than beef or pork. Females tended to more strongly agree that conventionally produced poultry contained unsafe levels of hormones or antibiotics ($r = .19$) and that eating poultry is the cause of most food-borne illnesses ($r = .15$). Females more strongly disagreed that hormones are never given to poultry ($r = -.15$). There were no significant correlations between self-perceived knowledge of the poultry industry, poultry industry affiliation, residence, or level of education and respondents' level of agreement with any statement in Table 1.

Poultry industry affiliation had low positive correlations with agreement that producers care about the welfare of their poultry ($r = .16$) and use humane production practices ($r = .15$). Respondents' level of education was negatively correlated with agreement that poultry processing employs a large number of undocumented workers ($r = -.21$) and positively correlated with agreement that poultry production is harmful to the environment ($r = .15$). There were no significant relationships between respondents' self-perceived knowledge of the poultry industry, age, level of education, or gender and level of agreement with any statement in Table 2.

Conclusions, Discussion, and Recommendations

Of the perceptions assessed in Part I of the instrument, Table 1 related to policies, procedures, and standards in the poultry industry. The remaining questions in the perceptions section of the survey were based largely on consumer preferences and personal understanding of the poultry industry (see Table 2). Conclusions are discussed based on these two sections of the survey, and recommendations for agricultural communicators, educators, and poultry industry public relations are made.

Conclusions

Consumers possessed a higher level of self-reported agricultural literacy regarding the affordability of poultry as compared to other meats, the use of antibiotics in poultry production methods, and poultry as a source of food-borne illness. Consumers reported they were fairly knowledgeable about the price of poultry in comparison to other meats, generally agreeing with the valid statement that poultry is more affordable than beef or pork (American Meat Institute, 2009). Consumers were also knowledgeable about antibiotic use in poultry production. In regard to the use of antibiotics being legal and utilized in the poultry industry, the majority of consumers surveyed were aware of this fact (Jones & Rick, 2003). Finally, consumers were knowledgeable about poultry serving as a source of

food-borne illness; whereas, they generally disagreed that eating poultry is the cause of most food-borne illness (Bruhn & Schutz, 2007; Painter et al., 2013).

Consumers lacked self-reported agricultural literacy regarding perceptions of the other policies, procedures, and standards addressed in the survey; namely, consumers lacked knowledge about the healthiness of organic poultry in comparison to conventionally produced poultry, the use of hormones in poultry production, the level of antibiotics and hormones present in conventionally produced poultry, and the use of factory farms in the poultry production industry. Consumers generally agreed that organically produced poultry is healthier than conventionally produced poultry, but with the strict mandates and regulations enforced by the government concerning food safety in mind, both organically and conventionally produced poultry should possess the same level of health for the consumer. Consumers disagreed with the statement that hormones are never given to poultry, despite the illegality of the use of hormones in poultry production (Donoghue, 2003). In a similar fashion, consumers moderately agreed that conventionally produced poultry contains unsafe levels of hormones or antibiotics; research that supports the notion that the levels of antibiotics in conventionally produced poultry are safe, and the level of hormones is nonexistent because of the absence of their use (Donoghue, 2003; Verbeke & Viaene, 1999). Consumers agreed most Arkansas poultry is grown on factory farms, which is in contrast to the truth that most Arkansas poultry farms are owned and operated by producers, not integrators (Boehler, 2010). However, this perception is dependent upon consumer understanding of what a factory farm is, and could simply mean that consumers equate modern production practices with factory farming instead of the ownership of farms by integrators as factory farming.

Regarding the remainder of the perceptions assessed as a part of the instrument, consumers varied in their favorability of poultry production and all it entails in Arkansas. Consumers held moderately favorable views of the level of care poultry producers possess about the poultry they raise, yet consumers were slightly less agreeable that poultry farmers use humane production practices. In regard to these two perceptions, there was a significant difference between industry affiliation and if consumers thought producers had an adequate level of care for their flocks and that they used humane production practices. Consumers were unsure as to whether poultry production is harmful to the environment, but most consumers generally disagreed they would like to live near a poultry farm. There was a significant difference in consumers' understanding of the effect of poultry production on the environment and their educational level, indicating that as people become more educated they may realize the effects of poultry production on the environment more. Respondents were in general agreement that poultry processing employs a large number of illegal immigrant workers, but because of the lack of research accounting for illegal immigrant workers it is unsure as to whether this perception matches with reality or not. A significant difference existed between the level of education an individual held and their opinion about whether undocumented workers were involved in poultry production, meaning education could play a role in improving this area of understanding. The results of this study revealed a lack of correlations between self-reported perceptions of poultry production and education, which points toward a need for improved understanding of the poultry industry at all levels of education. In a similar fashion to research conducted by Frick and colleagues (1995), despite the limited knowledge consumers held of some aspects of poultry production in Arkansas, the majority agreed that poultry production had a positive effect on the state.

Recommendations and Implications

It is particularly troubling that consumers in Arkansas show deficiencies in self-reported levels

of poultry production agricultural literacy, but perhaps it is more troubling that agricultural communicators and educators have not worked to keep consumers better informed about the practices of an industry that is so important to the state. To remedy the lack of understanding of the poultry industry revealed through this study, consumers need to be educated about the health benefits of conventionally produced poultry, the absence of hormones in poultry production methods, the effects of the use of antibiotics in poultry production, and the business model of poultry production in Arkansas. These proposed educational topics should be addressed through industry marketing efforts aimed at improving consumer knowledge, which will ultimately improve and ensure the importance of poultry production in Arkansas (McGraw et al., 2012). As noted, these educational efforts should be focused at all levels of formal education; whereas, there was a lack of correlation between self-reported perceptions and education. As recommended by Specht and Buck (2014), these marketing efforts should depict the reality of production processes in the industry instead of merely trying to draw in consumers through entertainment.

Consumer education should become a higher priority for the poultry production integrators in Arkansas, such as Tyson Foods, Inc.; OK Foods, Inc.; Simmons Foods, Inc.; Cobb-Vantress, Inc.; and George's, Inc. Communicators in agricultural based organizations should be careful to depict reality while engaging in marketing efforts, as well as work to create convincing arguments to combat other campaigns that may misrepresent agriculture to the public (Goodwin & Rhoades, 2011; Specht & Buck, 2014). Marketing efforts should be directed at women; whereas, previous research noted they are the primary consumers for groceries (Dholakia, 1999). Female consumers should especially be advised of the healthiness of conventionally produced poultry, particularly in regard to the use of antibiotics and the absence of hormones in poultry. Agricultural communicators should also work to bridge the gap of media coverage of agriculture issues through improving relations with media (Lundy et al., 2006). The availability of this information concerning poultry production practices in media coverage would aid in improving agricultural literacy (Lundy et al., 2006). Additionally, improving agricultural literacy in this way could have positive effects on poultry consumption and legislation (Holloway, 2004).

In one way or another, perceptions weigh heavily on the mind of the consumer because of the implications or consequences associated with the actions driven by perceptions. Improved consumer education efforts must adequately address the topics on which consumers lacked agricultural literacy. As consumers become more knowledgeable about these topics they will better understand the consequences associated with their perceptions, thus making more informed purchasing decisions (Ajzen & Fishbein, 1980; Belleau et al., 2007). The theory of reasoned action explains that consumers make decisions based on the consequences associated with a purchase (Ajzen & Fishbein, 1980). As consumers become more aware of the absence of negative consequences associated with purchasing poultry through educational and marketing efforts they will be more likely to purchase poultry (McEachern & Schroder, 2002). The increase in marketing and educational materials to improve agricultural literacy about healthiness of conventionally produced poultry, the effects of the use of antibiotics, and the absence of hormone use in poultry production, and the business model of poultry production in Arkansas is a direct implication of this research that falls under priority area one of the National Research Agenda (Doerfert, 2011).

This study revealed consumer perceptions in regard to a variety of parts of the poultry production industry. One limitation of this study was the lack of generalizability, which would have strengthened the findings and conclusions. Despite this limitation, consumer perceptions identified in this study should be used to more effectively tailor marketing and education efforts to maintain the importance

of poultry production in Arkansas through improving agricultural literacy. Lessons learned in this research may add value to consumer messaging, specifically to poultry purchasers. This study should be repeated on a national level or in other states. For any commodity that is of importance to the national or a state economy this study could be replicated to better understand consumer perception of the commodity which could lead to improved communications efforts about the commodity. Additionally, qualitative research could be conducted to gain a deeper understanding of how consumers develop and maintain perceptions of commodity production and how that affects their purchasing behavior.

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Totally Transparent: A Qualitative Study About the Impact of Farm Tours on Bloggers

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Abstract

Producers and agricultural organizations often struggle to effectively and efficiently communicate agricultural practices and values across the green divide. Additionally, producers and agricultural communication professionals must compete with inflammatory or misleading statements communicated to uninformed consumers via the blogosphere and rapidly disseminated on social media. Many organizations are beginning to implement agritourism events as a way of educating the consumer and influential bloggers. This study utilized semi-structured interviews to explore the perceptions, attitudes, and experiences of four bloggers who were invited to a three-day agritourism event. Results showed participants identified personal exposure to transparent farmers yielded an increase in knowledge and appreciation of farming practices that positively impacted their trust in the American farmer and food system. This study expands upon current research being conducted on agritourism events, transparency, and expectancy violations theory and suggests organizations structure agritourism events in such a way as to demonstrate transparency and positively violate the expectations bloggers may have regarding agricultural producers.

Key Words

Transparency, expectancy violations theory, agritourism, bloggers, and advocacy

Introduction

Social media is an infrastructure of online communities such as blogs, discussion boards, websites, and social networking sites that can positively impact a company or organization (Mangold & Faulds, 2009). This study was focused specifically on the influence of blogs and bloggers. Blogs are an online journal where users can create highly organized posts categorized by subject matter and allow online authors to gather likeminded and interested readers (Gunter, 2009). Blogs have steadily grown in popularity (Singer, 2009) and often include advocacy efforts and opinion pieces (Galer-Unti, 2010), which can be efficient and powerful communication tools to initiate conversation about specific topics (Kerbel & Bloom, 2005). Since consumers trust and value the opinions of people they can identify with, bloggers' opinions may carry more weight than celebrity endorsements (Hsu, Liu, & Lee, 2010). The influence of bloggers on the agricultural industry cannot be underestimated. The blogosphere has the power to influence agriculturally related policy the same way traditional media and personal interest groups do (Baker & Irani, 2014).

Since bloggers are highly influential individuals (Hsu et al., 2010) who can impact an organization or industry (Baker & Irani, 2014; Mangold & Faulds, 2009), blogs with messages related to agriculture are of the upmost concern to agricultural industry leaders (American Farm Bureau, 2014; Cattleman's

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Beef Board, 2015; Tew & Barbieri, 2012). Recognizing the sway such writers have over consumers, commodity groups and corporations have made an effort to educate bloggers by inviting them to sponsored agritourism events (Cattleman's Beef Board, 2015) and farm tours (Bickel, 2014; Henry, 2014; Masker, 2014). The primary goal of agritourism, the process of a member of the public visiting a farm for a non-agricultural purpose (Fleisher & Tchetchick, 2005), is to interact and educate the public about agriculture and farm life (Lobbo et al., 2014). These educational events are on the rise (USDA NASS, 2009) partly because agritourism has been shown to increase event participants' awareness of agricultural production practices (Che, 2007). In addition to being an educational opportunity for the public, farmers also value farm tours because the events allow producers a chance to personally connect with and educate consumers (Tew & Barbieri, 2012).

Recognizing the social clout popular bloggers carry, many businesses now seek to partner with bloggers to convey information about products or services to their readers (Mendoza, 2012). Agricultural industry leaders have also determined there may be value in sponsoring agricultural tourism experiences for bloggers to educate an influential audience (Masker, 2014). However, since bloggers have unique backgrounds and motives behind blogging (Kozinets et al., 2010) and can state opinions conflicting with the interests of the sponsoring organization (Capriotti, 2011), companies should approach such partnerships with caution when enlisting bloggers to help advocate on their behalf and build consumer trust.

Trust in food production has shifted from being based less on personal relationships between producers and consumers to prompting efforts to increase transparency (Jokinen, Kupsala, & Vinnari, 2012). When agriculturalists answer this call for transparency and communicate accordingly, their communication efforts may have a more positive influence on consumer attitudes and trust, which may also establish stronger relationships with consumers (Rumble, 2013). Additionally, "perceived transparency could significantly influence both attitude and trust" (Rumble, 2013, p. 175). In addition to trust and attitude shifts, transparent communication can be effective in increasing consumer competence and understanding (Tampere, 2007). Beyond being transparent, building trust requires explaining one's values (Meijboom, Visak, & Brom, 2006) and helps establish and maintain positive relationships (Tschannen-Moran & Hoy, 2000). However, increasing transparency also brings a challenge of potentially exposing weakness or information that can be used in a negative manner (Rawlins, 2008).

Participants who attend agritourism events will form expectations for their tour experience. According to Burgoon's (1978) Expectancy Violation Theory (EVT), individuals anticipate what will happen in a given situation based on the traits of those persons involved in the communication, the nature of the area in which the interaction occurs, and social norms. When an experience differs from an interactant's expectations, their expectations are violated. Negative psychological reactions can occur when established expectations are unmet (Negy, Schwartz, & Reig-Ferrer, 2009). Conversely, positive psychological reactions occur when experiences exceed expectations established prior to an event (Negy et al., 2009). Additionally, when an individual's expectations are violated, his or her interest is aroused and he or she will pay more attention to the source of arousal than the message (Le Poire & Burgoon, 1996). In the event of expectancy violation, whether positive or negative, communicators who are considered highly regarded will stimulate more enjoyable and involved communication thus leading to an increased perception of credibility and more persuasive messages (Crano, Burgoon, & Oskamp, 2001). Bloggers have the potential to educate the public about agricultural practices, especially when they encounter first-hand experiences on the farm conducted by transparent and highly regarded farmers. However, a gap exists in the literature

regarding how farm tours can impact bloggers' perceptions of agriculture.

Purpose and Research Questions

The purpose of this study is to understand bloggers' perceptions, attitudes, and experiences related to an agritourism event. The following research questions guided this study:

1. How can an agritourism event impact bloggers' trust in farmers?
2. How can an agritourism event impact bloggers' perceptions of agricultural practices?
3. How can an agritourism event impact the expectations and experiences of bloggers?

Methodology

In October 2014, the Kansas Farm Bureau held a three-day farm tour with eight bloggers. The eight tour participants were chosen purposively by the Kansas Farm Bureau. Criteria for being invited to the event included, but was not limited to, having a pre-existing relationship with the organization, a national readership, little previous exposure to agriculture, and residing in a nearby metropolitan area.

A qualitative approach was deemed appropriate because qualitative studies allow researchers to gain a complete understanding of participant experiences (Creswell, 2007). Specifically, this study utilized semi-structured, in-depth interviews, which enable researchers to explore participants' experiences on a deeper level (Flick, 2009). Interviews are frequently used for data collection because participants are more willing to share in-depth information with the researcher (Creswell, 2007). The semi-structured interview approach was utilized for this study because participant viewpoints "are more likely to be expressed in an openly designed interview situation" (Flick, 2009, p. 150).

The researchers obtained the contact information for the eight tour participants from the Kansas Farm Bureau. On the last day of the tour, the research team sent an email to each potential participant inviting them to participate in a 60- to 90-minute interview. Four of the eight participants responded and agreed to participate.

A panel of experts reviewed a 13-question interview guide that included additional prompts. Based upon Flick's (2009) recommendations, broad or unstructured questions were asked first. As the interview progressed, questions were asked with increased structure and specificity to prevent "the interviewer's frame of reference being imposed on the interviewee's viewpoints" (Flick, 2009, p. 151). The interview questions addressed a variety of topics, including a description of the participant's blog; their perception of farms and agriculture prior to the tour and after the tour; and their attitudes toward agriculture and farmers following the tour. Institutional Review Board approval was obtained and prior to the interview, each participant signed a consent form and was given a confidentiality agreement. A summary of the bloggers is listed in Table 1.

The lead researcher conducted the in-person, in-depth interviews with each of the participants approximately one month after the tour. Three interviews were conducted in private meeting rooms at public libraries in the bloggers' hometowns, while one interview was conducted at the blogger's home. Each interview utilized the same questioning guide, and the interviews lasted between 60 and 90 minutes.

The interviews were recorded using two audio recorders and were transcribed by the research team. Participant responses were evaluated using Glaser's constant comparative method (Glaser, 1978), which allows coding and the identification of themes to occur in a "formal and theoretically relevant way" (Flick, 2009, p. 314). NVivo was used to facilitate the identification of codes and categories that were then used to develop appropriate themes.

Table 1

Characteristics of Participants

Name	Participant Description	Social Media Following
Anna	Anna has children and began blogging approximately two years ago. She says, “blogging is a perfect creative outlet for me as a stay-at-home mom. I feel like it’s key to my mental health because that’s something else to focus on as well as my kids.” The primary source of traffic to her blog is Pinterest. She attended the tour because she knew other bloggers who planned on going, and she had a prior connection to the organization that planned the trip. She, “thought it would be interesting for people to read ... and [she] had never really been to a farm.” She has national readership. She had been on one previous farm tour, but wanted to see what the “large” farms were like.	Facebook: 4,000 + Instagram: 1,500 + Pinterest: 7,000 + Twitter: 1,000 +
Beth	Beth has a formal education in journalism and was attracted to blogging because it was an outlet for self publishing her work. She started a niche “mom blog” in 2009 as a way to get free cloth diapers and some extra income every month. The primary source of traffic to her blog is Pinterest. She, “was excited to see all the different types of farming in Kansas ... and [she had] heard the anti-agriculture side more than [she heard] the pro-ag side, so that’s why [she] wanted to see the farms.” She has national readership and has been on prior farm tours.	Facebook: 5,000 + Instagram: 1,500 + Pinterest: 2,500 + Twitter: 15,000 +
Cassie	Cassie started blogging as part of her job for the company where she works. She realized she enjoyed the blogging process and decided to start her own blog centered around food. The primary source of traffic to her blog is Pinterest, but she believes most of her interaction takes place on Instagram. Although she grew up surrounded by farms, she never had much experience with ranching. She attended the tour because, “it would give [her] the opportunity to have the right perspective on things so that [she] could share that with [her] readers and, hopefully, get good press out there.” She has national readership.	Facebook: 2,500 + Instagram: 250 + Pinterest: 3,000 + Twitter: < 1,000
Diana	Diana started her crafts-based blog six years ago as a creative outlet. Diana employs another blogger to write about food on the blog and receives compensation from companies to promote their products on her blog. The primary source of traffic to her blog is Pinterest. She believes readers interact with her the most on Instagram. She has national readership.	Facebook: 25,000 + Instagram: 5,000 + Pinterest: 50,000 Twitter: 5,000

Note: Blog subscribers and readership was not collected because participants did not have that information readily available at the time of the interview. Participants were given pseudonyms for confidentiality.

Instead of generalizability and repeatability, qualitative researchers are more concerned with transferability, confirmability, and credibility (Creswell, 2007). Credibility was addressed in this study by creating an interview instrument that followed the guidelines and recommendations of Flick (2009). In regards to confirmability, the lead researcher utilized communicative validation, which allows the participant to “agree with the contents of their statements obtained” in the interview (Flick, 2009, p. 389). Therefore, participants were debriefed following the completion of the interviews. Though participant responses are not generalizable to a larger audience, their experiences may indeed be transferable to other bloggers with minimal agricultural backgrounds who attend agritourism events. Validity is of the utmost concern in regards to qualitative research and can be addressed in a number of ways (Flick, 2009). Since a concern regarding the validity of qualitative research is “how to specify the link between the relations that are studied and the version of them provided by the researcher” (Flick, 2009, p. 387), coded themes were evaluated by all members of the research team who compared the generated themes to the interview transcripts. To ensure the confidentiality of the participants, each blogger was given a pseudonym as identified in Table 1. In addition, names of farmers or Kansas Farm Bureau employees mentioned in the interview were removed to protect confidentiality.

Subjectivities are a natural part of qualitative research and cannot be removed from the interviewer or interviewee, and as such, any communication, field observations, emotions, or experiences become explicit knowledge and an integral part of the research process and should be noted (Flick, 2009). Members of the research team included three master’s students studying agricultural communication and one faculty member in agricultural communications with an interest in advocacy for the agricultural community that could have generated sympathetic emotions or viewpoints toward the farmers on the tour. The lead researcher on this project also had a small, unestablished agricultural advocacy blog at the time of this study.

Limitations

Although four participants is an acceptable number for a qualitative study (Creswell, 2007), results and findings cannot be generalized beyond the individually constructed experiences of the bloggers within the context of this specific farm tour (Flick, 2009). Additionally, some bloggers had more exposure to agricultural practices or to farmers, which could have influenced their attitude toward agriculture or made them more sympathetic toward the individual farmers. One of the bloggers had previously been on a farm tour that could have influenced attitudes and perceptions toward food and agriculture. Finally, visiting small, niche market operations, rather than average-size, commercial farms could have given bloggers a one-sided view of agriculture and influenced their attitudes and perceptions toward food and agriculture.

Findings

RQ 1: How Can an Agritourism Event Impact Bloggers’ Trust in Farmers?

Participants’ interview responses yielded the following two themes: 1) the perception of transparency led to increased trust in farmers and 2) direct interaction with farmers put a face to food.

The perception of transparency increased trust in farmers.

When participants began describing their experiences on the farm tour, three of the four bloggers mentioned a positive perception of transparency. Anna mentioned this sense of transparency was

to asking and answering my questions ... I literally asked every single farmer about GMOs and antibiotics ... they were all super open to answering my questions.” Diana had a similar perception, stating, “I didn’t quite know what we’d see. But I thought the farmers were real transparent and showed us everything. We saw all sides of the farms.” Beth was unsure how the farmers would handle the presence of bloggers, but recalled, “They were being so transparent. I wasn’t sure if they would be nervous ... but no, he took us right there.” When asked how that feeling of transparency impacted her view on the farmers, Beth mentioned, “Very trustworthy. I had more trust in them, like, if I have any questions, they will answer any of them.” The fourth blogger did not mention a lack of transparency; she simply didn’t mention transparency at all.

The tour put a face to food and the agricultural industry, which also resulted in an increase in trust in the American food system.

Three of the four participants offered unsolicited responses regarding how the tour increased their trust in the American food system by putting a face to their food. Diana, who indicated an increased trust in the American food system after the tour, offered insight into this theme, saying:

Knowing there’s people behind the food system. It’s not just this big industry without a face that’s printing out food that we don’t recognize ... It’s just real food with real people. That puts a trust in the system and what we’re eating ... After going on this tour, that’s where I gained my most insight who farmers are, who the people are behind the food we eat in our country. It put a face behind the people, a face behind the food I eat as a consumer. This food isn’t just coming from a grocery store; there really are farmers behind it. When you think about organic food, those are grown on farms. But coming off this tour, I feel ... farmers make all the food for us.

Beth had a similar viewpoint, saying “I got to see what those sources [of food] are ... It was excellent at putting a personality to the food. Whenever I think of agriculture, I think of the farmers themselves versus just a nameless farmer doing a certain act.” Cassie also mentioned a newly associated identity between farmers and food as a result of the tour and said, “I’m definitely more aware of it ... It does make me look at things differently. Opened my eyes to want to know the source ... I had a positive experience with those farmers, and I’d probably lean toward buying those products.” Diana offered further insight into how the tour impacted her trust in the American food system by concluding, “My biggest takeaway is from the people. There are really genuine people behind our food. They care about the product and the consumer, which is us.” The theme of trust did not emerge in the fourth blogger’s interview, but the blogger did not mention a lack of trust either.

RQ2: How Can an Agritourism Event Impact Bloggers’ Perceptions of Agricultural Practices?

To understand how the tour impacted participants’ viewpoints toward the agricultural industry, bloggers were asked questions pertaining to their experiences on the tour and if any events surprised them. Participant responses yielded the following themes: 1) the tour increased knowledge and understanding of agricultural practices, including GMOs, antibiotics, and hormones; 2) animal welfare concerns were clarified; and 3) the tour created new and unbiased information resources.

The tour increased knowledge and understanding of agricultural practices, including GMOs, antibiotics, and hormones.

Three of the four participants identified an event on the farm tour that changed their perceptions or increased their knowledge level regarding controversial topics in agriculture such as antibiotics, GMOs, or growth hormones. The fourth blogger did not mention these issues. Recalling her visit with a beef producer who showed the bloggers how and why they implant their beef cattle with hormones, Cassie said, “You know people think they put so many hormones into ground beef; but, it’s just a miniscule amount compared to what you get from a standard head of lettuce ... You get more hormones from that than you ever would from beef.” Alluding to her visit on the dairy and how that helped clarify her concerns with hormones and milk, Anna said, “I was under the impression that all dairy cows were given hormones to keep them lactating ... I asked the dairy and they said they don’t give any hormones to their cows ... You hear you need to drink organic milk because conventional milk has hormones in it.”

Beth mentioned the tour helped her understanding of how antibiotics are administered to livestock, saying:

Every farmer we saw, they only treat them with antibiotics if a pig is sick. It’s like, if your kid is sick, what are you going to do? You’re going to give them antibiotics. The same thing with animals. They care about them almost like they feel, um, cruelty to animals if they don’t treat them if they’re sick.

Participants also mentioned the tour positively influenced their perceptions of GMOs. Anna shared the tour was a transformational experience for her viewpoints toward GMOs, stating:

It totally changed my opinion about GMOs. Before going, I thought like, we can’t put GMOs in our body, ever. That was really my biggest realization was that GMO feed to animals is not making them sick ... I also came away with the opinion that GMOs really aren’t harming us. I realize that’s a big statement.

Animal welfare concerns were clarified.

All participants mentioned the tour helped them gain a better understanding of the agricultural practices commonly used in animal production housing. Cassie commented about the first time she saw calf pens on the dairy farm, saying:

They’re all in little cages. Scary. I was just like, why are they all in little cages? You’d expect them to be with their mom, cuddling up with their mom and learning to be a cow. They’re pulled away for a reason, for their health and safety. After they explained it to me, I realized that was best for them so they could care for them and make sure they weren’t injured or harmed or anything. It made sense after that.

When asked to describe an event or situation that stood out to her, Anna mentioned the calf pens, as well. Recalling a moment that took place a week after the tour, Anna stated:

I was searching [on the Internet] for feedlots and dairy, and I saw pictures that looked exactly like the pictures I’d taken ... of the calves in their little huts and um next to like “terrible

environment for cows” ... like using the same picture ... In my mind I’m sitting here thinking they change those beds every day. If it’s winter, they put coats on the calves. They feed them on a schedule. Those calves are taken care of. They’re not running around, but they’re good. They’re given the best milk. Farmers care about what they’re doing and care about the safety and health of their animals.

Diana also mentioned the cleanliness of the farms and said, “When you think of farms, you think they’re going to be messy or sloppy.” However, reflecting upon her experience on the farms, Diana stated how her original perception was unfounded, stating, “It wasn’t sloppy. They were all really well-organized. They were clean, and the animals were happy.”

Regarding the decisions farmers make involving the welfare of animals, Beth concluded “[Farmers] know why they do what they do, and they know the way they do it is the best for the animal. It helped me understand that it’s not specifically for the money. It’s also for the animal.”

The tour created new and unbiased information resources.

Participants were asked to explain their rationale behind their post-tour survey answers that indicated the tour helped them identify information resources regarding food and agriculture. Three of the four participants identified the tour organizers or the farmers were newly-found sources of unbiased information. Diana mentioned the Kansas Farm Bureau was a new information resource, saying:

Farm Bureau has been real good about sending links and articles that seem unbiased. I think they’ve done a real good job providing information from lots of different sources and not just their own personal sources. I think that I would know where to get information on food if I ever had a question. If I were to ask them to give me five different articles on five different sources, I would be able to form my own opinion.

Anna mentioned, “Now that I know [the event organizer], I feel like if I have a question, I can just email her and she’ll get some sources to answer things for me.” Although Beth would default to an Internet search for information regarding food and agriculture, she stated she would now utilize the contacts that were created on the trip, saying:

After talking to these farmers and then talking with the Farm Bureau and soybean association, I feel like I now have contacts. So, if I do have a question about food, I can email off to these three people and someone will tell me where to go. I feel like the Farm Bureau will be an extremely valuable resource. She has so many contacts. She emailed us resources that have been done on America’s food system and America’s food and agriculture. That just helps me realize there’s a lot of studies being done to make sure that what we’re eating is safe and farmers are constantly educating themselves about how to keep their animals healthy so we can eat healthy food.

RQ3: How Can an Agritourism Event Impact the Expectations and Experiences of Bloggers?

The participants were asked questions pertaining to what they were expecting to see at the farms and ranches they visited. Participant responses yielded three themes: 1) bloggers were not expecting educated and highly trained farmers; 2) bloggers did not associate farming with a business; and 3)

some bloggers recognized the popular portrayal of the industry was not accurate.

Bloggers were not expecting educated and highly trained farmers.

Some of the bloggers were surprised to discover the farmers were college educated. Anna, for example, stated, “My biggest surprise was everyone was a college graduate. Every farmer I met was a college graduate; I did not expect that.” Asked to elaborate further, she described her prior experience meeting a farmer on a niche farm tour, saying, “He didn’t go to college. He was just out of high school. In my mind, a farmer might be someone who is more blue collar ... So, I was really surprised [farmers on this tour] were all very educated about what they were doing.”

Diana had similar expectations, and said, “They had all gone to college in agriculture. I didn’t know it was a degree. I didn’t even think about the education farmers have to have to be able to raise these crops and raise good cattle.” Further alluding to the educational requirements needed to be a farmer, Diana continued, “You saw highly educated farmers that had a lot of science behind what they do.”

Bloggers did not associate farming with a business.

Three of the four bloggers mentioned they had never viewed agriculture as a business and their expectations were positively violated when they met the farmers. Diana mentioned, “It was interesting that it was like a business. They are owning their own business. It’s not just farming on the side. It was calculated, and they’re business owners and that was interesting.” Anna, who has a husband who owns his own business, echoed this sentiment and said, “They’re really not any different than anyone else running a business.” Although Beth had a few experiences with farmers in the past, this trip created the viewpoint that, “no matter who you are, it’s a business. Farming is a business.”

Aside from being impressed that farmers are business owners, some participants also identified they appreciated the niche marketing that was possible with the business aspect of farming. Cassie mentioned the hog farm she visited and said “Know[ing] that their operation was catering to a specific industry, a luxury pork market ... I don’t think it ever occurred to me that farmers could cater to a group like that.”

Diana also mentioned the niche marketing aspect of the farms she visited stood out, saying, “It was interesting to hear their side of the story and how they were able to find that niche and to really stay in business because they were filling this need that they had found.”

Bloggers recognized popular portrayal of industry was not accurate.

Anna mentioned she received most of her agricultural information from the media and the media shaped her viewpoints toward conventional agriculture. She said:

Before I went on this tour, I was extremely indoctrinated with a lot of information about four or five years ago. I was kind of swept up in Michael Pollan, *In Defense of Food*, and *Food Inc.* I literally didn’t eat any conventional industrial meat for a year and a half. I was scared of food. I thought this food is going to kill us. Conventional farming was making us all sick. They don’t care about the food they produce ... I was afraid of conventional meat, and I was going to die from E-coli ... And that’s kind of what I believed going into this tour.

When asked to share passages she posted on her blog post about the trip, Anna mentioned her viewpoints toward agriculture have changed and she had realized the bias of the media had persuaded her

for several years. She read from her blog post:

So, one thing that I realize is that before we believe something about food and start to apply that principle to our diet, we should do a little bit more research to find out what science says. For instance, when you believe as I did that organic produce has more nutrients and, in general, is healthier for you than conventional produce, um, I think most Americans probably think this as well. The science doesn't back that up though.

Anna concluded her blog post by saying, "The moral of this story is that there are lots of opinions of food for us to eat and really, our decisions should be based on facts about food and not just fear."

When asked what she expected to see at the farms, Cassie identified her perceptions and expectations were shaped by articles she has seen on social media and the Internet, saying, "I expected to see pens full of pigs. You know, sectioned off without much room to move around. That's because those are some of the things you see on TV and on social media." However, she mentioned how her first visit to a hog farm helped put what she had seen in the media into perspective, saying, "Those are the negative perceptions of farming. That wasn't the case on the tour. The pigs were as clean as pigs can be. They were just looking like they were having a great time, rolling in the mud."

Discussion / Conclusions

The findings of this qualitative study suggest the educational agritourism event had a positive and powerful impact on the participants' viewpoints toward the farmers who provided the tours. This positive experience positively violated participants' expectations of the farmers and their operations. Lastly, the personal and positive experiences with the farmers led the participants to generalize their experience and form positive viewpoints toward the larger agricultural industry.

Utilizing Bloggers as a Public Relations Experts

The tour was successful in educating the participants about common agricultural topics, such as animal welfare concerns, use of antibiotics, GMOs, and hormones. The educational outcomes of this event align with the findings of Che (2007). A common goal of agritourism is for public outreach and education regarding production practices and the life of farmers (Lobbo et al., 2014). However, agritourism events may not be a practical way to reach the masses, especially consumers who do not live near a farm. By selecting bloggers for agritourism, the potential reach is expanded in this case to the thousands of followers of these "mommy" bloggers, which allows a hosting organization to reach hundreds of thousands with a handful of people on a tour. The bloggers in this study all shared their experiences via their vast social networks and blogs, which indicated inviting bloggers to agritourism events may indeed be an efficient and effective way to educate the general public about agricultural practices and give insight into the personal lives of farmers. However, the bloggers identified they only wrote about their experience and at the time of the interviews did not discuss their new viewpoints on GMOs or antibiotics.

Transparency

The results of this study indicated the perception of transparent communication among farmers is not only desired by participants on agritourism events, but also it can be profoundly influential in building consumers' trust in the American food system by creating positive associations between the food they eat and the trustworthy farmers that grow the product. Participants created associations

between the honest and transparent farmers they met with the products they purchased in the store, thus transforming nameless products they associated with a corporate entity into those of honest and trustworthy individuals. These findings provide further evidence to support transparency research and how such perceptions of transparency can affect the trust of consumers (Rumble, 2013).

Breaking Expectations

All participants identified varying levels of expectations going into the tour, some of which were shaped by the influence of popular media. The bloggers' most salient memories from the tour all consisted of events or situations that positively violated their expectations, which increased their level of trust or admiration in the farmers they visited and the industries those farmers represented. This finding offers further implications that highly regarded communicators receive more favorable evaluations, even when their interactions differ from participant expectancies (Crano et al., 2001).

Recommendations for Practitioners

Farmers and ranchers who participate in farm tours should consider the expectations of the uninformed consumers and how their viewpoints may have been influenced by popular media sources and films that may have fostered a lack of trust in the agricultural industry. Therefore, to maximize the educational potential of agritourism events and build trust among consumers, organizers, farmers, and ranchers should make every effort to foster an atmosphere of transparency and honesty on the tour while highlighting the family nature of their operations. In doing so, participants may create personal associations and connections to the food they purchase and break down the corporate stigma of the agricultural industry often presented by popular films.

Furthermore, participants indicated positive perceptions toward the educational requirements needed to be a farmer or rancher and how that education increased the validity of the farmers' or ranchers' rationale for their production practices. The participants also identified the trip produced a new resource for unbiased information and the bloggers would contact the individual farmers or event organizers for more information. Therefore, producers and event organizers should realize the educational component of agritourism events is not confined to the event itself, but it lasts as long as the relationship between the organizers, farmers, and agritourism participants remains. Since bloggers are effective means of getting information to the public (Mendoza, 2012) and have the power to influence policy (Baker & Irani, 2014), producers and event organizers should make every effort to continue to invest in those relationships formed on the farm tour and act as informational liaisons to the bloggers in the areas of agriculture and food.

Practitioners also should be cautious about how participants will generalize their experiences on the trip. Several of the stops on the agritourism event could be considered niche markets that deviate from what is commonly found within the industry. Participants' expectations were positively violated by these niche producers, thus producing a positive psychological response that was extremely memorable. Therefore, it could be logical to conclude that, with the newly formed emotional connection to their experience that produced a generalized expectation to all other farms, their violations would be equally violated in the negative if they were shown common practices outside of the niche industry they experienced. Although participants identified the niche markets were a positive aspect of the trip, practitioners should be cautious of how exposure to niche markets may produce long-lasting and possibly inaccurate expectations for the industry as a whole.

Recommendations for Researchers

The interviews for this study were conducted within approximately one month of the agritourism event. However, little is known about how the tour impacted the long-term attitudes or behaviors of the participants. It is recommended future researchers conduct studies on the perceptions and experiences of bloggers on farm tours and follow the participants throughout the year to determine if the formed attitudes and behaviors remain long after the experience of the trip. Additionally, since the goal of inviting bloggers on agritourism events is for them to communicate with their readers, researchers should actively study the content of the blog after an agritourism event to identify the key themes, topics, and tones associated with agriculture. Bloggers may feel apprehensive communicating complex and emotionally charged issues like animal welfare, GMOs, antibiotics, or hormones to their readers, so researchers should also examine how the spiral of silence influences what bloggers share with their readers. This study further expands upon knowledge of how agritourism events can affect the perceptions of participants and increases the body of knowledge by including how influential bloggers perceive that event and communicate their experience their readers.

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Ask the Audience: Determining the Organizational Identity of a State Extension Agency

Jennifer Ray, Lauri M. Baker, and Quisto Settle

Abstract

This study explored organizational identity of one state extension agency to determine strategies for building future messaging in external branding materials. Thirty-nine focus groups were conducted to assess how internal audiences (employees and board members) perceive, feel, and think about the organization. Two of the 15 major themes found were 1) Extension is a link between the university and the people and 2) Extension provides research-based, credible information. Participants identified strongly with the vision statement and official slogan communicated by leaders prior to the study. The organization should build upon this identity when solidifying a brand image. Previous research indicates Extension should also proceed with caution regarding the themes of providing valuable services and information for low or no cost and not selling anything.

Key Words

Extension, organizational identity, branding, values, and culture

Introduction

Land-grant institutions celebrate a rich history of improving lives by sharing knowledge, while continually striving “to do more, and to do it better” (Kellogg Commission, 1999, p. 9). Professionals within Extension help individuals and communities make decisions to best serve their needs and improve future conditions (Mitchell & Gillis, 2006). The constant need to demonstrate fiscal responsibility while communicating the value of a public program (Settle et al., 2015) and the limited marketing budgets available to Extension communicators make it critical to use cost-effective strategies and tactics (Baker, Abrams, Irani, & Meyers, 2011).

Extension must market itself to ensure its resources are available and understood by stakeholders and are not merely known by few as the “best kept secret” (DeBord, 2007, para. 1). This can be achieved through developing a strong corporate brand, which can be useful to service-based organizations (Brady, Bourdeau, & Heskel, 2005; Krishnan & Hartline, 2001). Corporate branding is an opportunity for organizations to use vision, culture, and image as a means of promoting services (Hatch & Schultz, 2003). Organizational culture is reflected in organizational identity, how members “perceive, feel, and think about their organizations” (Hatch & Schultz, 1997, p. 357). Beyond developing the brand name and graphic elements, corporate branding requires assessment of organizational identity (Hatch & Schultz, 2002). Extension communicators must ensure brand strategy is informed by both external and internal perspectives. The purpose of this study is to assess the organizational identity of one state Extension agency to inform strategy for maintaining and strengthening the brand.

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Organizational Identity

Organizational identity is “a collective, commonly-shared understanding of the organization’s distinctive values and characteristics” and “refers broadly to what members perceive, feel, and think about their organizations” (Hatch & Schultz, 1997, p 357). Understanding the relationship between organizational, identity, culture, and image allows leaders to “encourage a balanced [organizational] identity able to develop and grow along with changing conditions” (Hatch & Schultz, 2002, p. 1014). Organizational identity is fluid and unstable, not a core, enduring organizational quality. This characteristic means organizational identity can be adaptive in accomplishing desired change if well managed (Gioia, Schultz, & Corley, 2000).

Previous research indicates Extension employees at some state agencies have internalized the organization’s mission and identify strongly with its values (Scott, 1997; Scott, Corman & Cheney, 1998). Torppa and Smith (2009) compared scores of Extension personnel’s organizational identity gathered during a period of relative stability and during a time of organizational restructuring. Although the scores were slightly lower in times of restructuring, they were still relatively high, indicating Extension employees have a strong and robust identification with Extension values. The authors agree reductions in organizational identity can be minimized through communicating continuity in values, even in times of change (Bartels et al., 2006; van Dick, Ullrich, & Tissington, 2006; Torppa & Smith, 2009). Continual measurement of organizational identity is needed to determine the success of leaders’ efforts to create stability or to shift values to better serve organizational needs.

Organizational Culture

Organizational culture involves all members at all levels, is rooted in organizational history, and includes material aspects of the organization, such as names, logos, buildings, leaders, and symbols. The culture develops within the organization and helps to explain the development and maintenance of organizational identity (Hatch & Schultz, 1997). Organizational culture is open and available to scrutiny from outside audiences (Hatch & Schultz, 2002). Quinn Patton (1987) argued Extension needed to change its cultural norms and shared beliefs to embrace the Information Age to remain relevant and effective in its mission. Extension is held together by strong commitment and tradition (Berrio, 2003), which may make it challenging to create changes in Extension cultural norms.

Organizational Values

Organizational values are one aspect of organizational culture, reflected in organizational identity (Hatch & Schultz, 1997, 2002). Safrit, Conklin, and Jones (2003) examined how Extension employee values changed between 1991 and 2001. After a baseline assessment in 1991, administrators invested resources to emphasize three concepts not valued by employees: racial/ethnic diversity among employees, racial/ethnic diversity among clientele, and Extension as a leader in overall outreach and engagement at the university. The value of racial/ethnic diversity among clientele increased by 41% during the 10-year period and the other two values remained the same. In the overall assessment, 10 of the original 12 values still existed, along with one new value. This study demonstrates organizational values may be slow to change (Safrit et al.). Employees perceived the organizational values most evident in the organization as working with groups of clients, unbiased delivery of information, credibility with clientele, helping people help themselves, and research-based programs (Crossgrove et al., 2005).

Organizational values may have unforeseen negative implications. Hansen (1993) argued “grassroots” and “research-based” values may come into conflict and said priority should be placed

“research-based” in such situations. Additionally, the value of low-cost resources and programs may be an area of concern. While Extension agents may believe providing free or low cost programs is an important component of the mission, external audiences may not value this attribute. External audiences of Extension in Kansas perceived services offered for “free” as lacking quality (Swendson & Baker, 2014). Assessment of internal and external perceptions of the brand is needed to identify areas for improved communication.

Changes and Challenges for Extension Identity

Changes in organizational structure may impact culture, identity, and image (Hatch & Schultz, 2002, 2003). Changes to Extension structure may include increased use of Extension technology (Mitchell & Gillis, 2006), new program areas (Klemme, Hausafus, & Shirer, 2005), and increased integration of family and youth programs into other Extension programs (Braverman, Franz, & Rennekamp, 2012). Iowa State University Extension conducted focus groups to identify employee perceptions related to a newer program area for at-risk audiences (Klemme et al.). The study identified challenges to new program areas, including perceptions the primary mission of the organization is agriculture and at-risk programming is not viewed as part of regular Extension work (Klemme et al.). With Extension’s long history, it is necessary to monitor how current internal audiences perceive the organization and how they may impress those perceptions on external stakeholders.

Corporate Branding

Service-based organizations, such as Extension, may benefit from corporate branding (Brady et al., 2005; Krishnan & Hartline, 2001). Employees express organizational identity to outside audiences, leaving impressions that impact the organization’s image (Hatch & Schultz, 2002). “Successful companies build their visions from redefinitions and reinventions of core values, rather than revolutionary shifts from one value to the next” (Hatch & Schultz, 2003, p. 1048).

The vision statement leaders at K-State Research and Extension communicated to internal audiences prior to this study was:

“K-State Research and Extension goal is to create and reinforce the impression that we are: science-based, inclusive, unbiased, practical, and community-focused.” (K-State Research and Extension Branding Guidelines, 2014, p. 1)

The vision statement is meant to guide employees in understanding brand values and communicating the values to external audiences. Additionally, employees are made aware of the organization’s official slogan, “Knowledge for Life,” which is also used in external communication.

Purpose and Research Questions

The purpose of this study was to assess perceptions, feelings, and thoughts internal Extension audiences (employees and board members) have toward one state extension agency to understand the organization’s current organizational identity. Prior to this study, the organization had not examined how the vision and slogan aligned with internal perceptions of the brand. As this was the organization’s first assessment of organizational identity, a qualitative approach was used to gather the participants’ unique responses. With this knowledge, organization leaders can determine how to adjust messages to internal audiences, while striving to maintain and strengthen a corporate brand.

The research questions that guided this study were:

1. How would internal audiences describe Extension to an external stakeholder?
2. How do internal audiences perceive the organization's mission?
3. What do internal audiences perceive to be unique about the services and resources Extension provides?
4. What do internal audiences perceive to be the most important service Extension provides?
5. How does organizational identity align with the organization's vision statement and slogan, communicated to internal audiences prior to this study?

Methodology

This qualitative study used focus groups to gather information on how internal audiences feel and think about K-State Research and Extension to gauge organizational identity. Focus groups are used in marketing research to determine emotional or unconscious factors, which can be difficult to study in survey research (Morgan, 1998). This study assessed notes from 39 focus groups, composed of county Extension agents and board members gathered at four partnership meetings in January and February 2014. Participants represented county and district offices from across Kansas in all discipline areas with diverse years of experience working for the organization or serving on a local board. This convenience sampling method was used to gather information from a large number of internal audiences already gathered.

One researcher, a communication administrator within the organization recruited participants, note-takers, and facilitators for each group. Note-takers were critical, as the setting did not allow for audio recording of the simultaneously conducted focus groups at each location. The researchers designed one moderator's guide and one questioning route, both provided to each group moderator. The communication administrator researcher trained the note-takers and moderators on how to ask questions and take accurate notes. The role of the communication administrator researcher aided in credibility of the note-taker training. Note-takers were members of the population of interest, which offered a level of intuitiveness and in-depth response. Note-takers kept an audit trail, conducted member checks, and debriefed participants. The moderators did not prompt participants by reminding them or providing them with examples of organization values, slogans, or other branding elements. The questioning route consisted of five questions related to describing the organization to others, the mission, what makes it unique, what it stands for, and what service is most important. A panel of experts — Extension administrators — reviewed the questioning route, and changes were made accordingly. The note-takers each used a unique style of recording discussion, leading to potential subjectivities in the responses and a potential loss of data.

The communication administrator researcher created a participant list for each focus group to represent diverse counties and discipline areas. Focus groups ranged in size from four to eight participants, which is within the target range recommended for a homogeneous focus group (Brown, 1999). There were 43 focus groups conducted among the four meeting locations. Each group had one note-taker and one moderator. More than 320 internal audience members participated. Focus group discussions ranged from one hour to one-and-a-half hours in length. Institutional Review Board consent was obtained prior to the start of the study, and all participants signed a consent form and were debriefed by the communication administrator researcher.

Notetakers submitted their group's notes to the lead researcher via email. Forty-three focus groups were conducted, but only 39 sets of notes were submitted in time to be analyzed. Therefore,

39 focus groups are included in this study. The primary researcher analyzed the 39 focus group notes according to Glaser's Constant Comparative Method (Glaser, 1965). This method involved the researcher reviewing data for emergent themes, while constantly comparing to previous themes. The lead researcher used WeftQDA software to facilitate the identification and development of themes.

The lead researcher is an agricultural communication master's student at Kansas State University, which is associated with K-State Research and Extension, who has previous experience interning for another state Extension agency. These experiences may have influenced viewpoints in analyzing focus group notes. Researcher subjectivity is a common concern in qualitative research (Flick, 2009).

Results

Although no emergent themes appeared in all 39 focus groups, 15 themes appeared in more than half of the groups (more than 20 groups). These are recorded here as major themes.

RQ1: How would internal audiences describe Extension to an external stakeholder?

Major Theme: Extension is a link between the university and the people of the state.

This theme appeared in 35 of the focus groups. One participant said, "Extension is the outreach arm of Kansas State University and part of a national organization, as well, where experts collaborate to bring credible, research-based information to the public ..." Another said, "We're the link of the knowledge and resources from Kansas State University to the residents of the county." Additional keywords and phrases are displayed in Table 1.

Table 1

Keywords and phrases describing major theme, Extension is a link between the university and the people of the state

arm	disseminating
extending	brings the university to the people
linking	Kansas State University in the community
connecting	bringing the university to you
bringing	local source of information supported by KSU
outreach	a way to continue the university experience

Major Theme: Extension is a place to find answers.

This theme appeared in 28 of the groups. One participant described the theme as "if you have questions, go ask the Extension office." Additional phrases are shown in Table 2.

Table 2

Phrases describing major theme, Extension is a place to find answers

local library	try to help you find the answer
one-step source	the right answers
can find anything out	the answer people

Another aspect of this theme is the expectation of agents "to work with and answer the question, no matter what." One participant described it as "I know about a lot of things and if I don't, I have

the whole university of specialists to help me find the answer.” Another said, “If we don’t know, we will find it for you.”

RQ 2: How do internal audiences perceive the organization’s mission?

Major Theme: Extension provides research-based, credible information.

This theme appeared in 38 of the focus groups. One participant indicated, “All information is research based, not just what you would find on Google.” Words such as unbiased, objective, research based, and credible demonstrated this theme. One participant mentioned the mission of Extension is “to provide unbiased information to individuals and local communities.” This theme was also demonstrated by mentioning Extension is not affiliated with corporations. “One thing I’ve enjoyed with KSU Extension is the unbiased opinions, recommendations, and research. They are not bought by big corporations. From the state level to the local level, they maintain integrity.”

Major Theme: Extension provides a wide variety of education experiences and opportunities.

This theme appeared in 32 of the focus groups. One participant explained that Extension is “diverse in [the] educational opportunities and experiences” it provides.

Table 3

Keywords and phrases describing major theme, Extension provides a wide variety of education experiences and opportunities

hands-on	educational programming
co-learning	variety of modes of information
lifelong learning	our purpose is education, not regulation
educating for life	educational source for youth and adults
community classroom	education ranging from rural to urban
teaching and outreach	continuing education for all in the community
local informal educators	many unique ways of disseminating information and knowledge

One participant questioned the way to describe the education Extension provides by asking, “Informal education. Do you use that term?” Another participant mentioned, “Participants are lifelong learners that transgress from participant/user to supporter/promoter over time.”

Major Theme: Extension provides valuable resources for low or no cost.

This theme appeared in 31 of the focus groups (see Table 4).

One participant explained, “We don’t have a dog in the fight; we’re just presenting the facts; people tend to trust more; minimal fees charged as we’re not trying to make a living off of others.” Internal audiences indicated this was a key aspect of the Extension mission. Extension is “not in it for the money” and must distinguish itself from “scams out there.” Extension provides “service without monetary compensation.”

Table 4

Keywords and phrases describing major theme, Extension provides valuable resources for low or no cost

free	low cost or no cost
cheap	you've paid for it already
no charge	it does not cost you a thing
affordable	not commercial/not for sale
mostly free	partially funded through taxes
not for profit	economical because programs are typically free or low cost
no personal cost	

Major Theme: Extension provides knowledge for life.

This theme appeared in 25 of the focus groups. The phrase “knowledge for life” appeared, along with phrases such as “knowledge transfer,” “knowledge out to the people,” “knowledge for life for all Kansans,” “knowledge to practice,” and “to empower people through knowledge and skills.” One notetaker recorded, “They all agreed. The real buzzword is the ‘knowledge for life.’” Another recorded, “The phrase, ‘knowledge for life’ touches all aspects [of Extension.]” Another said, “Knowledge [is the most important aspect of Extension] because it helps to better our communities.”

Major Theme: Extension provides people with information and skills to make decisions and take action in real-life situations.

This theme appeared in 24 of the focus groups. The theme was described in three groups as “Give a man a fish and he eats for a day; teach him to fish and he eats for a lifetime.”

Table 5

Keywords and phrases describing major theme, Extension provides people with information and skills to make decisions and take action in real-life situations

life skills	solving problems for life
applicable	the client makes the decision
how to live	resource for practical and achievable goals
learn by doing	practical information for everyday life issues
decision making skills	provide information to make better decisions
real-world application	educating people to make informed decisions

This often overlapped with the “knowledge for life” theme, in that Extension provides these skills that can be used throughout life such as the “ability to assess information.” In this way, Extension works to “enhance people’s ability to live a successful life,” by providing skills and “information to apply lifelong.” This also relates to the theme of empowerment (mentioned later) in that Extension aims to “give adults confidence to act.” One participant described a reason why communities need this aspect of Extension. “As lifestyles change, [there is a] real need for practical knowledge and education. Home [economic] classes, used to teach these skills, but [now the classes are] no longer offered.”

Major Theme: Extension improves the quality of life for people.

This theme appeared in 21 of the focus groups. This theme appeared in claims that a critical or the

most important component of Extension is to “improve,” “better,” or “maintain and improve” the quality of life for people. Another phrase that appeared was “Extension makes a difference in people’s lives.” Another variation was that Extension helps people to improve their life for themselves or “enhance people’s ability to live a successful life.”

RQ3: What do internal audiences perceive to be unique about the services and resources Extension provides?

Major Theme: Extension has a presence in every county.

This theme appeared in 30 of the focus groups. Participants stated the local availability of Extension resources and staff was unique and important.

Table 6

Keywords and phrases describing major theme, Extension has a presence in every county

local	presence in every county
localized	relevant at the local level
local connection	located in every part of the state
we are everywhere	reach all parts of the population
may be accessed locally	boots on the ground in every county

There was also a strong emphasis Extension is a part of the community, evident in the phrases “live in community,” “most people know the county agent,” “the agent is a member of the community,” “local presence felt,” “every county has a direct feed to the university,” and “agents are real people; we live there and know the community.”

Major Theme: Extension addresses community needs on a local level.

This theme appeared in 28 of the focus groups.

Table 7

Keywords and phrases describing major theme, Extension addresses community needs on a local level

personalized	considerate of local needs
locally driven	reactive to community needs
filter information	counties have different goals
community driven	community run with our boards
fit to the community	helps people solve their own problems
needs of communities	localizing programs to make them more effective

One participant said Extension “helps communities find solutions for issues affecting them, and is driven by local community; [Extension] can bring resources to them at the local level, where they live, grow, and learn.”

Major Theme: Extension is trusted and has a solid reputation.

This theme appeared in 27 of the focus groups. One participant said, “We are the best source to get at

the research-based information. [Extension] agent is also viewed as being knowledgeable.” Another said, “If it comes from [Extension], it is true.”

Table 8

Keywords and phrases describing major theme, Extension is trusted and has a solid reputation

trusted	a role model
honesty	can't break trust
respect	trusting environment
integrity	truthful and dependable
expertise	feel comfortable going to
helpful trust	trustworthiness of the organization

Note-takers recorded that the “agent/consumer relationship is important,” and “high quality.” One participant shared an anecdote demonstrating this theme, saying, “I worked in the private business sector eight years, then in watershed. I realized how people perceive K-State Extension; I was shut off, but the K-State Extension name opened the door.”

Major Theme: Extension provides a wide range of programs and expertise.

This theme appeared in 23 of the groups.

Table 9

Keywords and phrases describing major theme, Extension provides a wide range of programs and expertise

one-stop shop	all-encompassing
many subjects	large body of information
the whole gamut	vast availability of expertise
wealth of knowledge	wide variety of program areas
broad-based, very diverse	specialists in many areas of life
extensive knowledge base	information available is unlimited

Sometimes a list of programs was mentioned to demonstrate Extension covers a wide range of topics, such as “program areas of agriculture, family and consumer science, 4-H, and community development.” One participant said Extension includes “food systems, not just agriculture.”

Major Theme: Extension is for all Kansans.

This theme appeared in 23 of the focus groups. The idea is Extension is “for all Kansas residents” and “for people of diverse backgrounds-socioeconomic, age, and other types of diversity.” One of the most common ways this was reflected in the notes was “all ages.” This aspect was described as “from birth to death” or “womb to tomb” in three separate groups.

Participants noted there is “something for absolutely everyone in [Extension]” and the organization should “reach all age groups, all backgrounds, [with] no boundaries.” It was noted this aspect should be better promoted as part of the Extension brand. “A misconception of the public is that we’re just about youth,” said one participant.

Table 10

Keywords and phrases describing major theme, Extension is for all Kansans

everyone	all ages, all-inclusive
to all people	for all the Kansas people
rural to urban	all communities and ages
all Kansans	not limiting to certain income bracket
all walks of life	should reach out to more than just the poor and underprivileged

Major Theme: Extension is not selling anything.

This theme appeared in 21 of the focus groups. This theme appeared through the exact phrase “not selling something” and other very similar phrases. One participant said, “We do not have anything to sell but education.” The concept was used to support Extension is an unbiased source of information and to explain the Extension mission is to serve the people of the state, not to make a profit from them. Another participant made a note to say Extension is not selling something, but the organization does want its “brand to be recognized.”

RQ4: What do internal audiences perceive to be the most important service Extension provides?**Major Theme: 4-H Youth Development is a critical part of Extension, if not the most important.**

This theme appeared in 35 of the focus groups. Many groups mentioned 4-H fits in with the overall mission of Extension. One participant described it as “leadership education, starting at an early age (4-H) in basic family life, home, personal business, and community business.” Others mentioned a technique of “using youth to reach the entire family.” A similar idea was to “Train young children ... Develop them for life and they will use other Extension programs.” This idea is also reflected in the statement “4-H is the first place kids encounter community service, a springboard.” One participant described the overall Extension mission as “Two-fold: disseminate information from the university and develop future leaders through the 4-H program.” Another described it as “a process — growing tomorrow’s leaders that will feed the 9 billion (grand challenge).”

Another aspect of this theme is 4-H affects all people. 4-H is “not just for rural and farmers. 4-H includes technology, lots of topics pertinent to cities.” Adults were mentioned in reference to “developing volunteers and making leaders out of people with no 4-H experience.” One participant mentioned 4-H has an important role in the history of Extension, as “Originally, 4-H was the link to reach farm families.” Many participants indicated 4-H is or may be the most important aspect of Extension. “4-H is coming back. In our community, it is the last thing that should be sacrificed,” one participant said.

RQ5: How does organizational identity align with the organization’s vision statement and slogan, communicated to internal audiences prior to this study?

All five values present in the organization’s strategic vision statement were reflected in the participants’ responses, demonstrated in the results from the first four research questions. The official slogan, knowledge for life, was also a major theme. The strategic vision statement organizational leaders communicated to internal audiences prior to this study was “K-State Research and Extension’s goal is to create and reinforce the impression that we are: science-based, inclusive, unbiased, practical, and

community-focused” (K-State Research and Extension Branding Guidelines, 2014, p. 1).

The *science-based* and *unbiased* values were reflected in the themes of providing research-based information and Extension being a trusted organization. The *inclusive* value was reflected in themes of Extension being for all people, being affordable, being present in all counties, linking people to the university, and providing a variety of resources, programs, and opportunities for people. The themes of providing answers, providing knowledge for life, and providing information to make real-life choices were reflective of the *practical* value in the vision statement. The *community-focused* value was apparent in themes of improving the quality of lives, addressing needs at a local level, and providing youth development.

Conclusions & Discussion

Results indicate K-State Research and Extension employees believe in the Extension brand, and feel they are meeting community needs through quality information and programming. In terms of Extension’s brand, these results are positive. Employees lead to the ultimate success in delivering brand promise (Hatch & Schultz, 2002; Kimpakorn & Tocquer, 2010). Their perceptions of the organization need to match the image the organization is seeking to represent, creating a shared identity within the organization. This shared organizational identity helps the organization be successful (de Chernatony, 2001; Hatch & Schultz, 1997). The match between what the organization seeks to represent and what its employees believe of the organization is also important because it adds to the credibility of the organization in the views of the public (Hatch & Schultz, 2002). The affirmation from employees, that they know and understand the current Extension brand, may indicate Extension communicators and administrators have done a good job of communicating the brand to employees.

While this research indicates the brand is strong with employees and internal organizational identity is intact, there is concern this does not extend to external audiences. This research continues to reinforce the concept Extension is still known as the “best kept secret” (DeBord, 2007, para. 1). Without prompting, employees mentioned a few concerns related to branding, such as the idea the organization wants its brand to be recognized and it needs to better communicate the “Extension is for all state residents” theme. Minor themes (found in 11 to 19 focus groups) also revealed challenges in communicating the brand, such as the need for an elevator speech to easily convey all aspects of the mission. Employees mentioned Extension communication professionals should work with Extension employees to make sure they communicate the entire brand to external audiences, including all information and programming provided. There is no value in being the “best kept secret,” as this puts Extension in danger of continued funding cuts and lack of recognition at the state and national levels.

This study offers some interesting comparisons to previous research. The findings are consistent with Crossgrove et al. (2005)’s assessment of most-evident values held by Extension employees at The Ohio State University: working with groups of clients, unbiased delivery, credibility, helping people help themselves, and research-based programming. Unlike Klemme et al. (2005)’s study of employee perceptions throughout Iowa, the idea agriculture is the primary mission of Extension was not a major theme in this study. Perhaps if the focus groups in this study were designed with single-discipline groups, rather than a mix employees working across disciplines, a difference in opinion may have surfaced. Nonetheless, this study revealed internal audiences at K-State Research and Extension believe 4-H is a more important component of the mission. This may suggest a shift in thinking throughout the past decade. Additionally, the idea Extension promotes “grass-roots” efforts

was only a minor theme in this study, which is in line with Hansen (1993)'s notion that "research-based" should take priority. Finally, it has been argued Extension needs to change to stay relevant (Quinn Patton, 1987), while it has been shown Extension values may be slow to change (Safrit et al., 2003) and employees have a strong commitment to tradition (Berrio, 2003). In this study, the idea Extension is "current, proactive, timely, and relevant" only surfaced as a minor theme (in 11 to 19 of the 39 groups), suggesting internal audiences have not fully embraced the idea continual change is needed in achieving the Extension mission.

Recommendations for Practitioners

While this research was qualitative and focused on one state Extension program, it offers insight for other state Extension programs. Moving forward, Extension communicators at K-State Research and Extension should build messaging in external branding materials that reflect the values in its vision statement, which were supported by the participants in this study. As the organization develops its external branding materials, it should engage in the best practices that have been indicated in past literature, such as Walvis's laws for branding (2008), which were to remain relevant and distinct from competing brands, repeat a specific message, and use messages that garner active participation from your target audience. Being able to repeat a specific message will be important for Extension's brand success (Walvis, 2003), but it will also be difficult, given that the organization has five values it wants to represent. Multiple values and purposes, which are typical of public organizations, can be difficult to represent in external communications (Hoggett, 2006; Wæraas, 2008, 2010). Extension communicators should test any developed materials before implementation to ensure the materials meet the needs of the intended audience (Goodwin, Settle, & Irani, 2012).

Extension communicators should proceed with caution regarding the themes of providing valuable services and information for low or no cost and that Extension is not selling anything. Previous research indicates external stakeholders may not perceive this positively (Swendson & Baker, 2013) and will value programming and information less if it is seen as "cheap" or "free." As Extension continues to find its fit in the marketplace, it is important for external stakeholders to see value in what Extension provides. If people associate Extension with "cheap" or "free," they may not be willing to support the programming or speak of its importance to legislators. The perceived value of services can be examined in the testing stage of new marketing material implementation (Goodwin, Settle, & Irani, 2012).

Recommendations for Research

After implementation of new external branding materials, follow-up research should be conducted to determine the success of the materials as well as the public's response to the core values it is seeking to represent. As illustrated by the results of this study and Swendson and Baker's (2013) work, there is the potential for disparity in what internal and external audiences value. Future research looking at both groups will be necessary to ensure the brand is successfully interacting with its internal and external audiences. Additionally, researchers should continue to explore external audiences' views on paying for Extension materials and programming and the relation between paying and the perceived value of Extension. Finally, as Extension values have been slow to change in the past (Safrit et al., 2003), researchers should continually measure organizational identity to determine if, how, and why an organization's internal perceptions are changing over time. As organizational identity plays a critical role in building a successful corporate brand, it should be considered in shaping successful communication strategies.

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Characteristics of U.S. Agricultural Communications Undergraduate Programs

Jefferson D. Miller, Morgan M. Large, K. Jill Rucker,
Kate Shoulders, and Emily B. Buck

Abstract

This study characterized agricultural communications undergraduate programs nationwide. A total of 40 undergraduate agricultural communications programs were identified via the National Agricultural Communicators of Tomorrow database, Internet searches, and previous academic program research, and their existences were verified via multiple sources. Objectives included creating an accounting of existing programs, describing the programs' demographics, and identifying top programs. This study employed a census approach and used a descriptive survey design, including both quantitative and structured qualitative questions. The quantitative data were analyzed via descriptive statistics. A total of 26 respondents — faculty representing U.S. undergraduate agricultural communications programs — participated in this study. An increase in the number of academic programs across the U.S. was observed, compared to the last similar study published in 2000, suggesting an increase in popularity and student demand, which is most likely a result of an increase in industry demand for agricultural communications graduates. While programs varied in size and age, most faculty respondents projected an increase in enrollment in their undergraduate programs. Future studies characterizing the discipline should be conducted on a more frequent, standardized schedule, and improved participation in the study should be a goal. National curriculum studies also should be conducted to tie program characteristics and instructional methodologies to program success and to correlate program characteristics and demographics.

Key Words

Agricultural communications, academic programs, curriculum development, program development, and program evaluation

Introduction

With a history that can be traced back to the colonial times in the U.S., the profession of agricultural communications has developed and expanded, just as the media used to communicate about agriculture have changed and advanced over time (Telg & Irani, 2012). As the profession grows, driven by the demand for communicators to assist with advocacy and technology transfer (Bonnen, 1986), so does the enrollment in post-secondary agricultural communications academic programs (Weckman, Witham, & Telg, 2000a). In 2000, Weckman, Witham, and Telg published the results of their sample survey of 22 agricultural communications academic programs, which found the number of students majoring in agricultural communications in programs across the nation ranged from four students to 115 students, and the average number of students for academic departments was 36.63. Nine years earlier, in 1991, 30 agricultural communications programs across the country were

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identified (Doerfert & Cepica, 1991). Both Doerfert and Cepica's work and Weckman, Witham, and Telg's work noted the continued growth of the academic discipline. As the discipline grows, the relatively small group of faculty who teach and conduct research in it are challenged to prioritize their time among increasing responsibilities, including teaching, advising, recruitment, mentoring, club sponsorship, and placement of graduates (Weckman, Witham, & Telg, 2000a). Because of these ever-increasing responsibilities, a need exists to examine program growth with an eye toward managing it thoughtfully.

Acquah's (2010) academic program growth model proposed a collection of types of life cycles for academic programs in higher education. The model, simple as it is, includes several types of curves representing the stages of an academic program's life cycle. The life cycles of most programs follow a traditional bell curve, but Acquah suggests some programs may follow an s-shaped cycle-recycle curve (see Figure 1). Understanding the academic program life cycle enables higher education professionals to evaluate their programs' current stage in the life cycle and readily prepare for the next step in program development. Therefore, if the agricultural communications discipline can identify an applicable model (bell or s-shaped curve), it can more easily predict future growth patterns of programs and their various stage of growth.

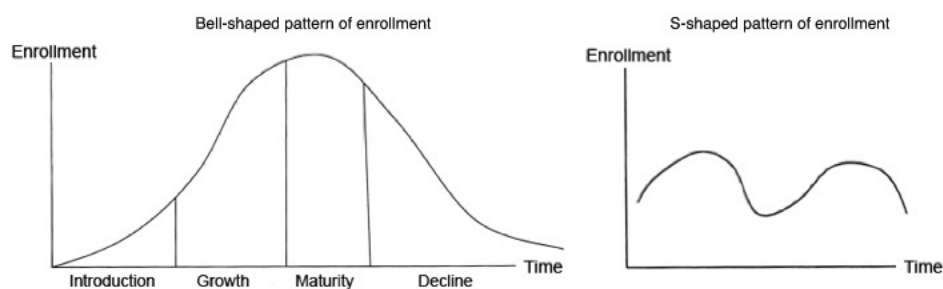


Figure 1. Bell- and s-shaped patterns of enrollments, adapted from Acquah (2010).

Academic literature in the agricultural communications discipline (Doerfert & Miller, 2006; Miller, Stewart, & West, 2006; Morgan, 2012) has highlighted the need for agricultural communications curriculum to be systematically reviewed and updated. This process would allow programs to evolve with purpose, leading to stronger programs and better-prepared students entering the workforce. The concept of describing program growth patterns was alluded to in a study conducted 20 years ago by Terry, Vaughn, Vernon, Lockaby, Bailey-Evans, and Rehrman (1994, p. 24). Their study, which resulted in the development of a guidebook for new and growing programs across the U.S., exemplified the value of conducting a thorough review of agricultural communications programs every few years to reevaluate and make changes to the agricultural communications curriculum. Terry et al. analyzed the opinions of leaders from the agricultural communications profession and established the undergraduate agricultural communications curriculum should include coursework in 28 disciplines and 89 specific competencies. Additionally, over the last four decades, numerous institutional, regional, and national agricultural communications curriculum studies have been conducted (Bailey-Evans 1994; Ettredge & Bellah, 2008; Fryar & Miller, 2006; Irani & Scherler, 2002; Kroupa & Evans, 1973; Reisner 1990; Sprecker & Rudd, 1997; Sprecker & Rudd, 1998; Weckman, Witham, & Telg, 2000a and b). However, literature fails to note a more recent comprehensive assessment of agricultural communications undergraduate programs since 2000. Therefore, it is clear that an accurate and recent characterization of national programs is necessary.

Purpose & Objectives

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

1. To create an updated account of existing national agricultural communications academic programs.
2. To describe demographic characteristics of national agricultural communications programs and describe potential trends in the discipline.
3. To identify the best agricultural communications academic programs as valued by agricultural communications faculty from programs across the country.

Methods

The data reported in this article resulted from a larger project, which was a mixed-methods descriptive examination of agricultural communications undergraduate programs, employing both quantitative and qualitative survey research and focusing not only on program demographics but also on faculty, faculty support, and curriculum. However, this article reports only the quantitative data describing the demographics of the identified programs.

Subjects

The subjects were agricultural communications faculty and administrators from colleges and universities in the United States. Programs falling under the umbrella of agricultural communications included those that offered majors, minors, concentrations, specializations, emphases, and/or options. Existing agricultural communications academic programs were first identified from the National Agricultural Communicators of Tomorrow's (ACT's) membership databases from 2001 through 2013, from the Association of Public and Land-Grant Universities (APLU) membership roster, and from online searches. ACT is the premier college student organization for agricultural communicators. Though not every academic program has an ACT chapter, the national organization maintains the most up-to-date list of programs in the United States. Once academic programs were identified from the ACT database, the APLU website was used to identify additional universities with agricultural communications programs. The APLU website acted as a starting point to lead to institutional websites. Websites belonging to the institutions that were members of APLU were searched and reviewed for the presence of an agricultural communications program via degree options offered. Web searches were also conducted to identify programs and corroborate the existence of previously identified programs. Terms used in keyword searches included "agricultural communications," "agricultural communications degree," and "agricultural communications degree program." Some institutions were contacted directly via personal communication (telephone or email conversations) to verify the presence of a program in instances where program existence may have been uncertain. For triangulation purposes, all programs were verified by more than one method. Additionally, the snowballing method, as described by Ary, Jacobs, and Razavieh (1996), was employed during surveys to further identify programs not identified by previous methods. The snowballing technique involved asking survey participants to name any additional programs they were aware of that might not be in the database or easily accessible via web searches. Finally, a few programs were identified and included in this study as a result of having been identified in another recent pedagogical study by Ahrens (2014). In all, 40 programs recognized as agricultural communications were identified. (Eight more programs were identified serendipitously after the survey and were verified by the same

methods. This fact and related details are noted below Table 1.)

Unit heads or equivalent faculty members overseeing the agricultural communications programs were asked to choose the most appropriate faculty member, based on his or her institutional knowledge, to participate in the survey.

Survey Instrumentation and Administration

The survey instrument consisted of a collection of researcher-developed questions as well as questions from previous instruments used in similar research. The survey consisted of 64 questions and included Likert-type, rank-order, fill in the blank, and open-ended questions. The questions reported upon in this article were guided by two constructs: (1) basic program information and (2) perceptions of model programs. To ensure stability of the instrument over time, test-retest reliability was calculated using data from a pilot test of the survey. The Cronbach's alpha calculated for the instrument was .818. The closer the Cronbach's alpha level is to 1, the more reliable the instrument (Gliem & Gliem, 2003). A coefficient of .7 and above is acceptable for proving reliability of the instrument (George & Mallery, 2003). Additionally, academic faculty — experts in agricultural communications involved in conducting the study — reviewed the instrument for content and face validity. Prior to the pilot test, cognitive interviews were conducted with qualified faculty members (but who were not selected to participate as subjects in the actual study). Their feedback led to further improvements in the validity and reliability of the instrument. The instrument was deemed valid for content and face validity both for the pilot test and actual study, and minor changes were made to the wording of the questions as a result of the cognitive interviews and pilot test. Following the recommendations of Dillman (2007), a series of emails was used to contact all identified subjects between March 18 and March 31, 2014. The emails contained a link to the online survey, created and offered through Qualtrics™.

Data Analysis

After the administration of the surveys, a quantitative analysis of the data was performed. The answers to Likert-type questions were reported as frequencies and percentages. A simple point system was developed to report the responses related to subjects' perceived top five agricultural communications academic program. A first-ranked program was awarded five points, a second-ranked program four points, and so on.

Results

Identification of Programs

A total of 40 programs across the U.S. were identified and verified as having an agricultural communications undergraduate program. A total of 26 subjects representing their programs responded to the survey, resulting in a 65% response rate. A total of six respondents chose to have their identities remain anonymous. Therefore, these programs were assigned letter identifiers A-F in Tables 2 and 3.

Table 1 identifies all 40 of the verified agricultural communications programs and the method by which their existence was most recently confirmed as of May 2014. The methods of verification included examination of the program's website, personal communication with a representative of the program, and the presence of the program in a recent agricultural curriculum study by Ahrens (2014).

Table 1

Identified Agricultural Communications Programs (N = 40)

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

Note: After the conclusion of this study in May 2014, eight more institutions with programs were identified serendipitously and confirmed via the same methods used in the study. They included Casper College, Colorado State University, Redlands Community College, Arkansas Tech University, Eastern Oklahoma State College, Illinois State University, University of Wisconsin-Platteville, and Sam Houston State University. This brought the total of confirmed agricultural

Program Demographics

The second objective of this study was to describe the identified programs. Tables 2 through 4 provide demographic data pertaining to the programs responding to the questions ($N = 26$). Table 2 provides basic program information, including name of program, college and department in which the program is housed, and position in the organizational structure. Table 3 includes the year the agricultural communications program began at each institution along with the academic degree awarded to students. Table 4 displays responses describing estimated current, historical (last five years), and projected (next five years) program enrollment, according to the participating faculty. Most respondents referred to their programs as *agricultural communications* or a close variant, and most reported programs were housed in colleges of agriculture. Seventeen of the respondents reported their programs offered a full major in the discipline, while others reported offering concentrations, emphases, specializations, options, minors, or combinations of all these. Sixteen of the 26 programs responding reported being housed in departments with *agricultural education* or some close variant in the departmental name.

Of the responding programs, a total of 88.5% offered a Bachelor of Science degree, while 7.7% offered a concentration/specialization/emphasis/option of a bachelor's degree. It is also noteworthy one program reported offering an Associate of Science degree. Of the programs surveyed, Texas A&M reported having the oldest agricultural communications program, established in 1918. The youngest program was established in 2009. (The respondent from this program chose to keep his/her responses anonymous.)

Table 4 shows each responding institution's estimates of current undergraduate student enroll-

ment totals, past enrollment trends, and future enrollment trends. Historical enrollment trends were based on the respondent's description of the last five years (2009-2014), and projected enrollment trends were based on respondents' estimated projections for the next 5 years (2014-2019).

The average student enrollment per institution was 69. Responses indicated 26.9% of the institutions' student enrollment numbers had remained constant over the past five years, whereas 73.1% of institution's student enrollment had increased. A total of 84.6% of respondents reported their programs plan to increase student enrollment numbers in the future, and 8% projected student enrollment numbers would remain constant over the next five years. No respondents reported a decrease in program enrollment over the last five years, nor did any respondents predict a decrease in student numbers in the coming five years.

Programs offering majors in agricultural communications ($n = 14$) reported graduating an average of 23.9 undergraduate students per year; programs with minors, 8.8 students; and programs with concentration/specialization/emphasis/option only reported 6.0 students. Agricultural communications majors were perceived as more likely to find a job within agricultural communications, while minors were viewed as more likely to find jobs in other aspects of agriculture outside the communications discipline. Students graduating from a concentration/specialization/emphasis/option program were also viewed as more likely to find a job outside agricultural communications.

Though the focus of this portion of the study is on the demographics of the programs, considerable amounts of data were collected on the characteristics of the programs' faculty. A more complete explanation of these characteristics will be reported in a future article, but basic faculty characteristics are germane to describing the programs across the nation. Programs varied somewhat in number of faculty, tenure/non-tenure track positions, gender and rank. Across the U.S., programs averaged 2.16 full-time faculty per program and .45 part-time faculty, with an average of 1.8 males and 2.4 females. Among 20 responses to a question about tenure track positions, the programs employed 10 full professors, 9 associate professors, 13 assistant professors, and 16.5 instructors. On average across all responding programs, full professors taught 2 courses per semester/quarter, associate professors 3.5 courses, assistant professors 2.6 courses, and instructors 2.6 courses. Furthermore, 77.2% of responding institutions ($n = 17$) planned to hire new faculty within the next five years, while 22.8% ($n = 5$) did not plan to hire any new faculty. Six programs (28.5% of the respondents to this question) predicted losing faculty members to retirement or resignation in the next five years; 15 (71.5%) did not anticipate faculty loss.

Table 2

Basic Program Information (N = 26)

Institution	Name of Program	College Housed	Department	Position in Organizational Structure	Degree Type
Program A	Agricultural Communications	College of Agriculture	It is an interdepartmental (multidisciplinary) program overseen by an appointed faculty advisory group.	Shared program housed by more than one unit	Major
Cal Poly State University	--	College of Agriculture, Food and Environmental Sciences	Ag Education and Communication	Program in multi-program unit	Major, Minor, Concentration/ specialization/ emphasis/ option
Clemson	--	--	The School of Agricultural, Forest, and Environmental Sciences in the College of Agriculture, Forestry and Life Sciences	It is one option of three in Ag Ed, others are teaching option and leadership	Concentration/ specialization/ emphasis/ option
Connors State College	Agricultural Communications	N/A	Division of Agriculture	Program in multi-program unit	Major
Kansas State University	Agricultural Communications and Journalism	College of Agriculture	Communications and Agricultural Education	Academic unit that also houses the service group	Major
Program B	Agricultural Communication	School of Agriculture	School of Agriculture	Program in multi-program unit	Major
New Mexico State University	Agricultural Communications	Agricultural, Consumer and Environmental Sciences	Agricultural and Extension Education	Program in multi-program unit	Concentration/ specialization/ emphasis/ option
Program C	Agricultural Communication	College of Arts, Humanities, and Social Sciences	Department of Communication	Program in multi-program unit	Major, Minor
Ohio State University	Agricultural Communication	College of Food, Agriculture and Environmental Sciences	Ag Communication, Education, Leadership	Program in multi-program unit	Major, Minor
Oklahoma State University	Agricultural Communications	College of Agricultural Sciences and Natural Resources	Agricultural Education, Communications and Leadership	Program in multi-program unit	Major
Pennsylvania State University	Agricultural Communications	College of Agricultural Sciences	Agricultural Economics, Sociology, and Education	Program in own academic unit	Minor
Purdue University	Agricultural Communication	College of Agriculture	Department of Youth Development and Agricultural Education	Program in multi-program unit	Major

South Dakota State University	Agricultural Communications	College of Agriculture & Biological Sciences	Teaching Learning and Leadership	Program in service unit	Major
Southern Illinois University	Agricultural Communications	College of Agricultural Sciences	Dept. of Plant, Soil and Agricultural Systems	Program in multi-program unit	Concentration/ specialization/ emphasis/ option
Texas A&M University	Agricultural Communications and Journalism	College of Agriculture and Life Sciences	Agricultural Leadership, Education, and Communications	Program in multi-program unit	Major
Texas Tech University	Agricultural Communications	College of Agricultural Sciences and Natural Resources	Department of Agricultural Education and Communications	Program in own academic unit	Major, Minor
University of Arkansas	Agricultural Communications	Dale Bumpers College of Agricultural, Food and Life Sciences	Agricultural Education, Communications, and Technology	Program in multi-program unit	Minor, Concentration/ specialization/ emphasis/ option
University of Florida	Communication and Leadership Development	College of Agricultural and Life Sciences	Agricultural Education and Communication	Program in own academic unit	Major, Minor
Program D	Agricultural Communication	College of Agricultural and Environmental Science	Agricultural Leadership, Education and Communication	Program in own academic unit	Major
University of Idaho	Agricultural Science, Communication, and Leadership	College of Agricultural and Life Sciences	Department of Agricultural Education and 4-H Youth Development	Program in own academic unit	Concentration/ specialization/ emphasis/ option
University of Illinois at Urbana-Champaign	Agricultural Communications	College of Agricultural, Consumer and Environmental Sciences and the College of Media	The Agricultural Communications is a freestanding academic unit.	Shared program housed by more than one unit	Major
Program E	Community and Leadership Development	College of Agriculture, Food and Environment	Dept. of Community and Leadership Development	Program in own academic unit	Concentration within a minor
University of Nebraska-Lincoln	Agricultural and Environmental Sciences Communication	College of Agricultural Sciences and Natural Resources	Agricultural Leadership, Education and Communication	Program in multi-program unit	Major
Program F	Life Sciences Communication	College of Agricultural and Life Sciences	Department of Life Sciences Communication	Program in own academic unit	Major
Utah State University	Agricultural Communication and Journalism	College of Agriculture and Applied Sciences	School of Applied Sciences, Technology and Education	Program in multi-program unit	Major
West Texas A&M University	Agricultural Media and Communication	College of Agriculture, Sciences and Engineering	Department of Agricultural Sciences	Shared program housed by more than one unit	Major

Note: Subjects from programs A-F chose to keep their responses anonymous.

Table 3

Years Programs Were Founded and Degrees Awarded (N = 26)

Institution	Year Founded	Degree Awarded
Program A	--	Bachelor of Science
Cal Poly State University	--	Bachelor of Science
Clemson	1999	Bachelor of Science
Connors State College	2006	Associate in Science
Kansas State University	1946	Bachelor of Science
Program B	1995	Bachelor of Science
New Mexico State University	1995	Bachelor of Science
Program C	2009	Bachelor of Science
Ohio State University	1980	Bachelor of Science
Oklahoma State University	--	Bachelor of Science
Purdue University	1971	Bachelor of Science
South Dakota State University	--	Bachelor of Science
Southern Illinois University	2007	Concentration/specialization/emphasis/ option of a B.S. degree
Texas A&M University	1918	Bachelor of Science
Texas Tech University	1992	Bachelor of Science
University of Arkansas	1998	Concentration/specialization/emphasis/ option of a B.S. degree
University of Florida	1993	Bachelor of Science
Program D	2000	Bachelor of Science
University of Idaho	2000	Bachelor of Science
University of Illinois at Urbana-Champaign	1961	Bachelor of Science
Program E	--	Bachelor of Science
University of Minnesota	--	Bachelor of Science
University of Nebraska-Lincoln	--	Bachelor of Science
Program F	2006	Bachelor of Science
Utah State University	2006	Bachelor of Science

Note: Several respondents did not provide a year in which their program was founded. Respondents from programs A-F elected to keep their responses anonymous.

Table 4

Current, Historical (Last Five years) and Projected (Next Five Years) Enrollment (N = 26)

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

Note: Several respondents did not provide a year in which their program was founded. Respondents from programs A-F elected to keep their responses anonymous.

Identification of Programs Held in High Regard

Table 5 shows a ranking of agricultural communications program across the United States, according to the opinions of 17 subjects who responded to this question. Respondents were asked to identify and rank what they believed to be the top five agricultural communications programs in the U.S. Below are the results of these rankings from the top ranked program to the tenth-ranked program.

Table 5

Top Agricultural Communications Programs (N = 17)

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

Texas Tech University's agricultural communications program, which was established in 1992 and had 160 students, emerged as the top-ranked program in this poll. The Texas Tech University program was followed closely by the agricultural communications programs at the University of Florida and Oklahoma State University. The programs at Texas A&M and Kansas State were fourth and fifth. Five points were awarded for each first place vote, four points for second place votes, and so on. Ties were broken based on the number of higher-ranked votes.

Conclusions, Implications, and Recommendations

Forty agricultural communications programs (48, counting programs identified after initial data collection) were identified and verified in this 2014 study. In the early 1990s, Doerfert and Cepica (1991) compiled a list of 30 known agricultural communications programs nationwide. Similar studies (Weckman, Witham, & Telg, 2000a; Weckman, Witham, & Telg, 2000b) were conducted on both a regional (southern) and a national level nearly 14 years ago. A total of 14 programs were reported in the South, of which nine programs responded, and 22 programs responded nationwide, though the total number of existing programs was not reported in that study. Also, these studies did not concretely identify the institutions where the existing programs resided. This made it impossible to track exactly which programs have closed since 2000. Nevertheless, it is clear that while a few programs have been phased out over the last two decades, the data from this study indicate the creation of numerous new agricultural communications programs.

The fact some programs have disappeared while more have emerged should be of specific importance to those who are interested in tracking the discipline's growth. Acquah (2010) noted most academic program lifecycles follow a bell curve, while some programs may follow an S-shaped curve. If U.S. agricultural communications programs follow the more common bell curve, with a net increase of at least 11 new programs over 23 years, it is possible that disciplinary growth nationwide is still on the rise and that the discipline remains on the left side of the bell curve. This increase in

agricultural communications academic programs over the last two decades is a logical result of an increased demand for agricultural communications practitioners and an increase in popularity of the discipline among college students and college-bound high school students. The vast growth of agricultural advocacy and the ever-increasing demand for communicators to aid in technology transfer, as predicted three decades ago by Bonnen (1986), are logical drivers of the growth of the agricultural communications discipline.

This study also indicates agricultural communications programs are diverse in structure and degree type and require a variety of faculty resources. This finding aligns with Reisner's (1990) observation that the most predominant characteristic of agricultural communications programs was variety. This appears to remain true for the most part in 2014.

Additionally, this study found a majority of programs are titled "agricultural communication" or "agricultural communications." Other (fewer) programs are called "agricultural science, communication, and leadership," "agricultural communication and journalism," and "agricultural media and communication." This finding suggests the common theme present among all programs is a focus on agriculture or sciences, with a second, equally important focus on general communications studies. All responding programs were affiliated with a bachelor degree except one (Connors State College), which offered an associate degree in agricultural communications. The emergence of associate degree programs could mark the beginning of a new trend among junior colleges and community colleges. (It is important to note several of the eight programs identified after the initial data analysis included associate's degrees, as well). Also, all but one program was housed in a college of agriculture, so the data clearly indicated colleges of agriculture have remained the home of the agricultural communications discipline.

Student enrollment in these programs varied from seven total students to 360 total students. The average student enrollment per institution was 66 students. The average enrollment in 2014 is more than twice the average of 29 students enrolled in agricultural communications programs as reported by Doerfert and Cepica (1991) and nearly twice the average of 36.6 reported by Weckman, Witham, and Telg (2000a). The increase in student enrollment is further evidence that the discipline's growth may still be on the left side of Acquah's (2010) proposed bell curve. Furthermore, a large majority of programs reported having experienced growth over the last five years and also predicted growth in the next five years. No programs reported decreases in the last five years, and none predicted drops in enrollment in the near future. These data are an indicator the academic discipline of agricultural communications is growing, which supports the notion of a growing industry demand for agricultural communicators. It is apparent students are becoming more aware of career opportunities in the discipline and academic programs are attentive to these opportunities for students, as well.

The first recommendation for further research is to conduct descriptive national studies on a more regular basis to achieve the best and most accurate responses to understand programs' current standing. Program descriptions and evaluations need to be conducted more frequently, with similar constructs measured to allow for longitudinal comparisons. Moreover, it should be noted the information in this research study was self-reported and estimated by agricultural communications faculty. Future studies, to increase the level of accuracy, should attempt to cross check reported information such as program size with official university records, therefore ensuring a more accurate profile of agricultural communications programs. Secondly, a study with a higher response rate would increase the accuracy of describing all agricultural communications programs nationwide. A substantial response rate (63.4%) was obtained in this study, but more responses would lead to a more

accurate census of the discipline. Finally, specific regional studies (North Central, Southern, and Western) should be conducted to describe programs in these specific locations along with identifying their needs and future plans. Variation in program characteristics likely exists among geographic locations due to different regional industry-related needs and overall program demographics. In addition to regional and nationwide studies, agricultural communications academic programs are emerging on an international forefront; they should be described and characterized in future studies.

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Exploring the Uses and Gratifications of Agricultural Blog Readers

Courtney Meyers, Kate Gracey, Erica Irlbeck, and Cindy Akers

Abstract

Blogs are a type of social media that present a unique opportunity to provide information to a large audience without the constraints of traditional media's gatekeeping barriers. Within agriculture, several studies have examined agricultural blogs but not from the perspective of blog readers. Therefore, the purpose of this study was to describe the uses and gratifications of agricultural blog readers. This study used a descriptive survey research design and online questionnaire to assess agricultural blog readers' demographics, Internet and blog use, attitudes toward agriculture, and motivations for reading blogs. Findings indicated most respondents had direct experience in agriculture and were supportive of the industry. The strongest motivations for accessing agricultural blogs were to find out what other people think about important issues or events and to find alternatives not covered by traditional news sources. Blogs proved to be a useful source of information, but more should be done to expand reach beyond those in the industry. Additional research is needed to more fully describe agricultural blog readers' uses and gratifications.

Key Words

Blogs, uses and gratifications, social media, and agricultural communications

Introduction

Social media have become an important part of how people communicate. Because of this, social media can impact how, why, and where people choose to find their information (Dunne, Lawlor, & Rowley, 2010). The majority of adults who utilize the Internet use some sort of social networking site, and of those adults, 42% use more than one social networking site (Duggan & Smith, 2013). Those social networking sites include Facebook, LinkedIn, Pinterest, Twitter, and Instagram.

Blogs are another form of social media, which allow the host blogger to post individualized information, links, photos, and videos, which other users may reply to through a variety of forms (Kaye, 2010). Although the number of people creating content for blogs is decreasing, many online users still rely on blogs to source information. Nearly 50% of Millennials (ages 18-33) and 40% of Gen X (age 34-45) frequently engage in reading, commenting on, and sharing blogs (Zickuhr, 2010). For businesses, blogs provide a unique opportunity to "alleviate some of the concerns that come with traditional marketing" (Singh, Vernon-Jackson, & Cullinane, 2008, p. 290). Blogs can increase cognizance and consumer loyalty through engagement of the consumer in the development of expectations and experiences. By opening the door to personal communication, blogs help foster an honest and trustworthy environment for consumers to easily participate (Anderson-Wilk, 2009; Singh et al., 2008).

Kaye (2010) indicated blogs are becoming an increasingly more popular way to communicate

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information because users prefer the interactivity of blogs. Blogs have given people the power to share a lot of information instantly and allow others to respond and contribute to the topic (Kaye, 2010). According to Smith (2008), blogs give consumers an outlet to exercise a legitimate online voice to share their opinion without having to go through traditional media channels such as television, newspapers, magazines, or radio shows. Blogs can provide a large amount of information for audience members, encourage interaction through comment features, and allow syndication of content to make the blog posts more accessible (Kabani, 2013).

Previous research on blogs has explored how blogs could be used in education (Kim, 2008); public relations practitioners' use of blogs (Porter, Sweetser, & Chung, 2009); how blog credibility affects how consumers select blogs (Kaye & Johnson, 2011); and the influence of blog readers' demographics on expectations (Kim & Johnson, 2012). These studies are only a few of the many empirical investigations into the use of blogs for personal, educational, organizational, and professional purposes.

As the availability and prevalence of social media tools has increased, so too have empirical studies to investigate how these tools are being utilized in agriculture. In an examination of how agriculturists used Facebook to promote agricultural advocacy efforts, Meyers, Irlbeck, Graybill-Leonard, and Doerfert (2011) found these individuals believed their efforts would not be possible without the use of social media. The in-depth interviews with administrators of Facebook groups revealed this form of communication was effective in encouraging conversation and building relationships.

Doerfert, Graber, Meyers, and Irlbeck (2012) conducted a study about what traditional and nontraditional media channels Texas agricultural producers used. The findings indicated while agriculturists predominantly used traditional media (such as magazines and radio), Internet use is increasing for finding agricultural information, particularly related to commodity markets. Overall, the respondents indicated very little use of social media to find information related to agricultural production (Doerfert et al., 2012).

A qualitative study of agriculturalists' use of social media for agri-marketing revealed participants were positive about using social media to communicate about their own agricultural operations and the industry as a whole (White, Meyers, Doerfert, & Irlbeck, 2014). These participants started using social media because they wanted to combat negative or incorrect information about agriculture (White et al., 2014). In a study of agriculturists in three states, Shaw et al. (2015) found Facebook was the only social media tool used frequently for both personal and business use. Other social media tools such as Twitter, blogs, and photo sharing sites were used less frequently, and the majority of respondents did not use these sites at all for personal or business use.

Within agricultural communications, several researchers have studied blogs. Fannin and Chenault (2004) explored how blogs could disseminate agricultural information to journalists and non-media consumers. In a content analysis of agriculture-focused blog content, Rhoades and Hall (2007) analyzed the characteristics of blogs in agriculture and what information the blogs contained. They found although agricultural blogs were a new communications tool, they did address a variety of industry-relevant topics. Rhoades and Aue (2010) surveyed agricultural editors and broadcasters to determine their use of Web 2.0 and social media technologies. These agricultural communicators understood the need to adopt new technology, but had difficulty maintaining blogs with pertinent information (Rhoades & Aue, 2010). Moore, Meyers, Irlbeck, and Burris (2015) investigated U.S. agricultural commodity organizations' utilization of blogs to reach their target audience. The results indicated agricultural communicators found value in using blogs to reach audience members, but said this communication outlet required constant attention to successfully develop relationships (Moore

How agricultural media portray important and relevant issues is becoming increasingly important because of the increased use of social media (Rhoades & Aue, 2010). As social media tools, such as blogs, become more popular outlets for agricultural news and information, there is a need to discover what motivates readers to access certain agricultural blogs over others. Although there has been research conducted about how agricultural commodity organizations use blogs to reach and communicate with readers (Moore et al., 2015), we need more information about why readers access agricultural blogs. It is important for the agriculture industry to have knowledge about blog readers to meet the audience members' expectations and information needs.

Theoretical Framework

The theoretical framework in this study draws upon the theory of uses and gratifications. The uses and gratifications approach attempts to understand and analyze the way people communicate to satisfy their own needs and expectations (Katz, Blumler, & Gurevitch, 1973). This theory contains several assumptions. The researcher must assume the person involved has some level of internal coherence and can understand the questions being asked. Each person must be perceived as active and unique; therefore, researchers should not assume all people are the same and have the same expectations. Another assumption is media sources are constantly competing with each other and researchers should not neglect older forms of needs fulfillment (Katz et al., 1973).

Media researchers should focus on the users' needs to more effectively evaluate how well media meet users' gratification criteria (Katz et al., 1973). A combination of features helps readers determine which media source is more or less qualified or credible to fulfill their particular needs or expectations. By studying peoples' uses and gratifications for accessing certain forms of mass media, communication professionals can potentially better target and serve their audience in the future (Katz et al., 1973).

Although uses and gratifications theory was established more than 30 years ago, it has had recent resurgence with more studies examining Internet and social media use (McQuail, 2005; Urista, Dong, & Day, 2008). Rubin (2009) stated newer online media "are continually altering how people, organizations, and societies function" (p. 155) and adopting a uses and gratifications perspective will help better understand relationships between people and communication technologies. Drawing upon past uses and gratifications research, different channels and content of media have been found to fulfill different gratifications (Kaye, 2010). Overall, traditional media users tend to be more passive, while Internet users are more interactive with their choice of media channel (Kaye & Johnson, 2011).

In regard to user-generated content such as that found through social media, Nardi, Schiano, Gumbrecht, and Swartz (2004) identified five main gratifications: recording one's life, giving options, articulating sincerely felt emotions, expressing thoughts through writing, and establishing and sustaining relationships. Through focus group interviews, Dunne et al. (2010) explored why young people use and participate in specific social networking sites. They found communication and friending were sought gratifications among participants and participants obtained peer acceptance and relationship maintenance (Dunne et al., 2010). Specific to blog use, Kim and Johnson (2012) developed four general reasons people use political blogs: political surveillance/guidance; expression and affiliation; convenience/information seeking; and entertainment. They surveyed political blog readers and determined the primary reason readers accessed these blogs was for political surveillance and guidance. The respondents wanted to find out what others thought of important issues and remain up-to-date with current events. The authors recommended additional research to more fully understand how blog use may be related to knowledge or behavior (Kim & Johnson, 2012). It is

evident determining why people access blogs provides a better understanding of their motivations and needs, but this may vary depending on the type of blog content, such as agricultural blogs.

Purpose and Research Questions

This research fits into Priority Two of the *National Research Agenda*, which includes new technologies, practices, and products. Doerfert (2011) said the drastic and constant increase of scientific information must be maintained and utilized through the use of technology, to better and more efficiently inform consumers, particularly in agriculture. Therefore, there is a need for research about the use of new technologies and how social media within agriculture can be used to better serve the selected target audience. By understanding readers' motivations and expected rewards from visiting agricultural blogs, agricultural communicators can make blogs more appealing, informative, and effective.

The purpose of this study was to describe the uses and gratifications of agricultural blog readers. This study investigated the following research questions:

1. What are respondents' Internet and blog use characteristics?
2. What are respondents' attitudes toward agriculture?
3. What are respondents' primary motivations for accessing agricultural blogs?

Methods

This study used a descriptive survey research design. A Qualtrics online questionnaire was employed because of its cost effectiveness and surveys are frequently administered to the public for research purposes; therefore, users are already familiar with the instrument format (Irani, Gregg, & Telg, 2004). To reach blog readers, a systematic random sample of 18 active blogs was identified from a full list of farm and ranch blogs published on www.causematters.com (Payn-Knoper, 2014). Because no universal list of agriculture blogs exists, this list of blogs was selected because Payn-Knoper strives to include links to blogs from people who blog about their farms and ranches. Blog authors can request to be listed on the site or someone else can recommend a blog to be listed. The list on causematters.com has more than 100 blogs representing farms and ranches nationwide.

Farm and ranch blogs were selected because these are typically administered by those directly involved in production agriculture versus a communications professional representing an agricultural organization. The administrators of these blogs were contacted via email to seek their participation in the study; six blog administrators agreed. A link to the online instrument, developed in Qualtrics, was posted on these blogs. The blog administrators who agreed to participate were provided with information to post on their blog that contained a brief introduction to the study and a link to the online questionnaire for blog readers to access. This does result in a convenience sample, which is a limitation of the study, but this method of reaching blog readers has proven effective in prior research (Kim & Johnson, 2012). The blog administrators were contacted twice to remind them about the study and encourage them to remind their readers to participate.

When readers clicked on the link for the online questionnaire, they were first asked to indicate if they were at least 18 years old. Only those who said yes were allowed to participate. Respondents were provided with a definition of agriculture to help them understand the context for the survey. The online questionnaire contained four major sections: demographics; Internet and blog use; attitudes toward agriculture; and motivations for blog use. In the demographics section, respondents provided gender, age, education, primary industry, income, marital status, and number of children.

The Internet and blog use section asked respondents to indicate how many years they had used

the Internet, time spent per week on the Internet and how often they accessed online news sites per week. This section also asked them to report the number of general blogs read on a regular basis and how often they read blogs in a typical week before having them indicate the same for agricultural blogs. Finally, this section asked respondents to identify how much they rely on blogs for agricultural news and information on a five-point Likert-type scale where *1 = not at all* and *5 = extremely*.

The third section of the questionnaire asked respondents to indicate how knowledgeable they were about agriculture and how interested they were to learn about agriculture. These questions were answered using a Likert-type scale where *1 = not at all* and *5 = extremely*. To measure attitudes toward agriculture, respondents were provided the following statement: "American agriculture is ..." They then responded using a five-point semantic differential scale with six bipolar adjective pairs: *bad/good*, *unethical/ethical*, *unimportant/important*, *not beneficial/beneficial*, *negative/positive*, and *not valuable/valuable*. Ary, Jacobs, and Razavieh (2002) said four to eight adjective pairs can be adequate for this type of scale, and the selected adjectives have been used previously to measure attitudes toward agricultural topics (Meyers, 2008; Wood, 2006).

The final section of the questionnaire explored the motivations for reading agricultural blogs using 21 statements adapted from Kim and Johnson (2012) that represented four main reasons people read political blogs: surveillance/guidance, expression/affiliation, convenience/information seeking, and entertainment (see Table 1). Respondents indicated their level of agreement to each statement on a Likert-type scale where *1 = strongly disagree* and *5 = strongly agree*.

A panel of experts reviewed the instrument to establish face validity. Post-hoc reliability analysis established Cronbach's alpha coefficient of .86 for the attitudes toward agriculture construct. The following Cronbach's alpha coefficients were calculated in post-hoc analysis for the motivation to read blogs sub-constructs: surveillance/guidance (.88), expression/affiliation (.82), convenience/information seeking (.86), and entertainment (.74).

Data collection began February 10 and was completed March 31, 2014. During that time, 163 people clicked on the questionnaire link and 122 completed enough items to be included in study, resulting in a 74.8% completion rate. All of the collected data were analyzed in SPSS to calculate descriptive statistics in the form of frequencies, means, and standard deviations.

The average age of respondents was 39 years old. The youngest respondent was 19 years old and the oldest respondent was 69 years old. Table 2 provides the demographic characteristics of respondents. Of the 122 respondents, the majority were female (80.3%, $n = 98$). The greatest percentage (41.8%, $n = 51$) had a bachelor's degree, and 31.1% ($n = 38$) had completed a graduate or professional degree. The majority of respondents were married (62.3%, $n = 76$) and did not have children under the age of 18 in the home (59.0%, $n = 72$). Income levels were divided among the five categories provided. Nearly one-quarter (26.2%, $n = 32$) earned \$25,001-\$50,000 annually, and 19.7% ($n = 24$) reported earning more than \$100,000 annually. When asked what type of industry best describes where they spent the majority of time working, more than half (52.2%, $n = 64$) said agriculture. The majority of respondents spent most of lives in areas classified as rural, either on a farm (59%, $n = 72$) or not on a farm (17.2%, $n = 21$).

Table 1

Sub-Constructs and Motivations for Reading Blogs (Kim & Johnson, 2012)

Sub-Constructs	Motivations
Surveillance/guidance	To find out what other people think about important issues or events To find alternatives not covered by traditional news sources To keep up with main issues of the day To feel in touch with what is happening in the country For a wide range of viewpoints To help me make up my mind about important issues or events To get detailed analysis of complicated issues To feel in touch with international events
Entertainment	To find stories that are enjoyable Because news web browsing helps me relax Because news web browsing is exciting
Convenience/ information seeking	Because the information is easy to obtain To access information quickly To access information at any time To access information at any place To find specific information I am looking for
Expression/affiliation	To communicate with others about issues To give me something to talk with others about To express my thoughts online To use as ammunition in arguments with others To participate in discussion/chat rooms

Table 2
Demographic Characteristics of Respondents

	<i>f</i>	%
Gender ^a		
Male	21	17.2
Female	98	80.3
Education ^a		
Less than High School	1	0.8
High School Grad or GED	7	5.7
Some college	12	9.8
2-year associate's	10	8.2
4-year bachelor's degree	51	41.8
Graduate or professional degree	38	31.1
Marital Status ^b		
Single	37	30.3
Married	76	62.3
Divorced	3	2.5
Widowed	2	1.6
Children Under 18 in the Home ^a		
Yes	47	38.5
No	72	59.0
Annual Income ^c		
Less than \$25,000	20	16.4
\$25,001-\$50,000	32	26.2
\$50,001-\$75,000	18	14.8
\$75,001-\$100,000	23	18.9
More than \$100,000	24	19.7
Industry ^a		
Agriculture	64	52.5
Other	25	20.5
Education	16	13.1
Health	5	4.1
Manufacturing	3	2.5
Public Service	2	1.6
Retail trade	2	1.6
Finance/Insurance/Real Estate	1	0.8
Construction	1	0.8
Community Where Spent Most of Life ^a		
Rural, on a farm	72	59.0
Rural, not a farm	21	17.2
Suburban, outside a major metro city	12	9.8
Suburban	10	8.2
Urban	4	3.3

^a*N* = 119; ^b*N* = 118; ^c*N* = 117

Results

RQ1: What are respondents' Internet and blog use characteristics?

To assess respondents' use of the Internet and blogs, they were asked to indicate how much time they spent online and how often they read blogs. The majority of respondents (60.7%, $n = 74$) reported spending more than 8 hours online each week. Table 3 displays respondents' time spent on the Internet each week.

Table 3

Respondents' Time Spent on the Internet per Week (N = 119)

Time	<i>f</i>	%
30 minutes to one hour	1	0.8
1-2 hours	8	6.6
3-5 hours	14	11.5
6-8 hours	22	18.0
More than 8 hours	74	60.7

Table 3 describes how frequently respondents accessed online news sites and read blogs each week. Forty-one percent of respondents ($n = 50$) reported accessing online news sites more than 10 times a week, while 20.5% ($n = 25$) accessed online news sites 7-10 times each week. When asked how often they read blogs each week, 30.3% ($n = 37$) indicated 4-6 times a week. Another 28.7% ($n = 35$) said they read blogs 1-3 times each week (see Table 4).

Table 4

Respondents' Frequency of Accessing Online News Sites and Reading Blogs per Week

	<i>f</i>	%
Accessing Online News Sites ^a		
Never	4	3.3
1-3 times	22	18.0
4-6 times	17	13.9
7-10 times	25	20.5
More than 10 times a week	50	41.0
Reading Blogs ^b		
1-3 times	35	28.7
4-6 times	37	30.3
7-10 times	19	15.6
More than 10 times a week	28	23.3

^a $N = 118$; ^b $N = 119$

Respondents also provided how often they read agricultural blogs in a typical week (see Table 5). Close to half (45.9%, $n = 56$) reported 1-3 times a week and nearly a quarter (23.8%, $n = 29$) said 4-6 times a week.

Table 5

Respondents' Frequency of Reading Agricultural Blogs per Week (N = 118)

	<i>f</i>	%
1-3 times	56	45.9
4-6 times	29	23.8
7-10 times	9	7.4
More than 10 times a week	24	19.7

In addition to how frequently they read agricultural blogs, respondents were asked to indicate how much they rely on blogs for agricultural news and information. Respondents indicated their level of reliance on a Likert-type scale where 1 = *not at all* and 5 = *extremely*. The mean score of 2.97 ($SD = 1.18$) indicates respondents somewhat rely on blogs for this type of information.

RQ2: What are respondents' attitudes toward agriculture?

Respondents were asked to indicate how knowledgeable about agriculture they were and how interested they were to learn about agriculture on a Likert-type scale where 1 = *not at all* and 5 = *extremely*. The mean score for how knowledgeable they felt they were about agriculture was 4.13 ($SD = 0.97$) indicating a moderately high level of self-perceived knowledge. The mean score for their interest in learning about agriculture was 4.64 ($SD = 0.69$), again revealing respondents were very interested in this topic area.

To measure attitudes toward agriculture, respondents provided their response to the statement: "American agriculture is ..." This index used a five-point semantic differential scale with six bipolar adjective pairs: *bad/good*, *unethical/ethical*, *unimportant/important*, *not beneficial/beneficial*, *negative/positive*, and *not valuable/valuable*. Overall, respondents indicated very positive attitudes toward agriculture with a mean score of 4.74 ($SD = 0.48$).

RQ3: What are respondents' primary motivations for accessing agricultural blogs?

To measure respondents' primary motivations for accessing agricultural blogs, respondents were provided with 21 statements and asked to provide their response on a five-point Likert-type scale where 1 = *strongly disagree* and 5 = *strongly agree*. Table 6 displays the descriptive statistics for all the motivation statements grouped by the sub-constructs identified by Kim and Johnson (2012).

Table 6

Agricultural Blog Readers' Motivations for Accessing Agricultural Blogs

	<i>n</i>	<i>M</i>	<i>SD</i>
Surveillance/guidance	119	3.65	0.74
Convenience/information seeking	117	3.55	0.78
Entertainment	120	3.27	0.83
Expression/affiliation	121	3.04	0.86

Note. Scores based on Likert scale with 1 = *strong disagree* and 5 = *strongly agree*.

The motivation sub-construct with the highest mean score was surveillance/guidance ($M = 3.65$, $SD = 0.74$). Expression/affiliation had the lowest mean score, but it was still above the mid-point on the scale ($M = 3.04$, $SD = 0.86$).

Conclusions & Implications

Previous research on agriculture's use of social media found those who are providing the information find this form of online communication to be worthwhile and effective (Meyers et al., 2011; Moore et al., 2015; White et al., 2014). However, others have found only a small number of agriculturists are using social media tools (Doerfert, 2012; Shaw et al., 2015). The current study provides valuable insight into a nascent area of research regarding agriculture's use of a specific form of social media — blogs. While others have examined agricultural blogs (Fannin & Chenault, 2004; Moore et al., 2015; Rhoades & Aue, 2010; Rhoades & Hall, 2007), the current study is the first effort to understand the readers' motivations for accessing this form of online communication.

The respondents in this study were primarily female and well educated. The average age was 39, and most were married with no children under the age of 18 in the home. One quarter of the respondents had modest annual incomes (\$25,001-50,000) while nearly 20% earned more than \$100,000 annually. Respondents were very engaged in agriculture, either through their careers or in the community where they have spent most of their life.

In terms of general Internet use, three-quarters of respondents spent more than six hours online each week. This indicates participants spend a significant amount of time online, which presents an opportunity for blog authors to reach more readers. The number of times blogs were read varied as did how often they accessed online news sites. When asked specifically about agricultural blog readership, the majority of respondents said they read agricultural blogs one to six times a week. This implies most respondents visit agricultural blogs on a regular basis.

Respondents were overall very positive in their attitudes toward agriculture. The semantic differential items indicated they viewed American agriculture as valuable, important, and beneficial. They also indicated high self-perceived values of agriculture knowledge and interest in learning more about the industry. These findings, combined with the demographic characteristics, indicate the readers of agriculture blogs are already familiar with and supportive of the agriculture industry. Agriculturists are often criticized for "preaching to the choir," and it appears these respondents support this critique. This study did not explore the blog administrators' purpose and targeted audience so this finding may or may not be in line with what they intended.

Although uses and gratifications research is more than 30 years old (Katz et al, 1973), it continues to have heuristic value in application to online media (Kaye & Johnson, 2011; Kim & Johnson, 2012; McQuail, 2005; Rubin, 2009). As the sources of media have evolved, so too have consumers' preferences for how they use that media to achieve their needs. The exploration of readers' primary motivations for accessing agriculture blogs indicated the highest mean was for the surveillance/guidance sub-construct. This is in agreement with the primary motivations Kim and Johnson (2012) identified for political blog readers. Smith (2008) recognized blogs can be valuable communication outlets because they do not have the traditional gatekeeping barriers that would prevent some from having a voice in the conversation on a topic. It seemed respondents appreciated being able to find information from a variety of sources. Although the expression/affiliation sub-construct for motivation had the lowest mean score of the four sub-constructs, it was still above the mid-point of the scale. This indicates blog readers are accessing this form of online communication for a variety of reasons including entertainment and information seeking.

Recommendations

One of the basic principles of effective communication is to know your audience, and Kaye (2005) recognized the need to understand more about blog readers. Blogs are an important online source for

information (Zickuhr, 2010). By having a deeper understanding of what motivates readers to access agricultural blogs, agricultural communicators can improve the design and placement of agricultural information. It appears readers of agricultural blogs are primarily those who already have a connection and positive perspective of the industry. While these individuals represent an important audience, they are not the consumers who need to be reached most to encourage a better understanding of the agricultural industry. In their study of why agriculturists used social media, White et al. (2014) said the participants wanted to combat negative or incorrect information about agriculture. Practitioners need to be creative and seek innovative ways to draw in readers from a broader base to fully extend their information to those outside the traditional audience.

Studying the uses and gratifications of readers will improve future efforts to target publics with accurate and informative content via blogs. Based on this study's findings, agricultural blog administrators should strive to provide blog content that presents alternative perspectives not presented in traditional news outlets. This means blog authors should be aware of current issues and events of importance to their readers and strive to provide another viewpoint or interpretation of the information.

This study provides a glimpse into who agriculture blog readers are and what they want. However, it does highlight the potential issue these blogs may not be reaching audience members outside of the agriculture industry. It could be those individuals did not participate in the study so additional research is needed to further examine blog readers' uses and gratifications. A limitation of this study is the small number of blogs included. In the future, additional blogs should be included so more readers can be surveyed. The blogs in this study were all farm and ranch blogs, but many other types of blogs exist in agriculture such as those for commodity groups and agribusinesses. Subsequent data collection and analysis would help further explore what influence demographic characteristics have on motivations to read agricultural blogs. Finally, the motivations assessed in this study are based on previous studies completed outside the agriculture industry. It is possible additional motivations for reading agricultural blogs could exist and would be best identified through the use of qualitative methods.

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Exploring the Relationship Between Preschool-aged Animated Television and Agriculture: A Content Analysis of Disney Junior's *Mickey Mouse Clubhouse*

Cassandra Dietrich, Emily Buck, and Annie Specht

Abstract

Understanding how modern preschool television series are framing agriculture can help agricultural communicators and educators gain insight into what schemata preschoolers have developed about agriculture prior to participation in formal education and non-formal youth programming (such as 4-H). Framing theory and schema theory play a role in a developing child's absorption and interpretation of television programming content. Considering the potential implications of television consumption by preschoolers, this study aims to use summative content analysis methods to examine how agriculture is framed in current preschool-aged animated television programming. This analysis reviewed two iTunes collections of Mickey Mouse Clubhouse, each of which contained five episodes of the show. The two iTunes collections selected — "Mickey and Donald Have a Farm" and "Mickey's Farm Fun-Fair!" — were chosen because of their farm-centric themes. While content analysis revealed Mickey Mouse Clubhouse does frame agriculture in a positive context, it also uncovered a lack of depth in regard to educational lessons related to production agriculture. Additionally, several inaccuracies and improbable scenarios regarding production livestock, farm machinery and crops were discovered.

Key Words

Preschool, television, agriculture, Disney, *Mickey Mouse Clubhouse*, farm, framing theory, schema, animation, and cartoons

Introduction

While television (TV) is still America's favorite entertainment pastime, overall viewership numbers continued on a declining trend in 2014 (Nielsen, 2014). Nielsen reported individuals spent more hours surfing the Internet and viewing streaming services and less time watching traditional television programming (Nielsen, 2014). In fact, about 2.6 million households are now "broadband only," meaning they don't subscribe to cable or pick up a broadcast signal (Nielsen, 2014). That figure is equivalent to approximately 2.8% of total U.S. households, more than double the 1.1% categorized as "broadband only" the previous year (Luckerson, 2014). Overall viewing of traditional TV also continues to shrink, with the average person watching about 141 hours of live television per month in 2014, compared with 147 hours per month in 2013 (Luckerson, 2014).

As the television media industry works to slow the decline in overall viewership, executives

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are looking to new audiences who remain loyal to television despite access to mobile media and streaming. One such market is preschool-aged children. Because their capabilities with mobile media and streaming are limited, “television continues to exert a strong hold over young children, who spend more time with this medium than any other” (Gutnick, Robb, Takeuchi, & Kotler, 2011, p.7). A report by the Joan Ganz Cooney Center at Sesame Workshop found television consumption by preschoolers climbed to an average of 3.5 hours a day, an all-time high since the Sesame Workshop began tracking the statistic eight years prior (Gutnick, et al., 2011). A 2003 study by the Henry J. Kaiser Family Foundation found among children aged 0 to 6 approximately 77% turn on the TV by themselves; 71% ask for their favorite videos; 67% ask for particular shows; 62% use the remote to change channels; and 71% ask for their favorite videos or DVDs (Rideout, Vandewater and Wartella, 2003). This explosion of television use by young children since the start of the 21st century has resulted in the creation of a number of television networks dedicated specifically for viewers aged 2 to 5 years, including Nickelodeon Junior, PBS Kids, Sprout, and Disney Junior (Yahr, 2012).

With television media placing such an emphasis on preschool-oriented programming, it is important to evaluate the content of these animated series. Understanding what preschoolers are learning and how it is absorbed in their schemata can be useful to educators and program administrators in filling gaps or correcting inaccuracies. In agriculture, consumer misinformation is a common and real threat as people become more and more removed from farming backgrounds and experiences. Today, more than 80% of the U.S. population lives in an urban area (U.S. Census Bureau, 2010). The ratio of U.S. citizens to U.S. farms is approximately 142:1, compared to 18:1 in 1935 (U.S. Environmental Protection Agency, 2013). In addition, the percentage of people farming for a living in the U.S. has declined from more than 30% in 1914 to less than 2% in 2014 (U.S. Department of Agriculture, 2014). This generational retreat from rural communities and farms to urban populations has resulted in a vast majority of children learning about agriculture solely through books, television and other media. Therefore, it is important to understand what children, distanced from farm and rural life, are learning about agriculture from their everyday cartoons.

Theoretical Framework

Evaluating how modern preschool television series are framing agriculture can help agricultural communicators and educators gain insight into what schemata preschoolers have developed about agriculture prior to participation in educational activities. Schemata are described as cognitive structures of preconceived ideas, which construct a framework representing aspects of the world (Zhao & Zhu, 2012). Schema theory states that, cognitively, humans develop a system of organizing and perceiving new information as they grow. “Schemas function as filters through which people order, interpret, and predict the world. Most people have developed schemas that help them to better understand themselves, the behavior of others, and events in the world” (Simpson, et al., 2013, p.17). Schemata also influence attention to and the absorption of new knowledge; studies show people are more likely to notice things that fit into their schema, while re-interpreting contradictions to the schema as exceptions or distorting them to fit. According to Padesky, co-founder of The Center for Cognitive Therapy, “Once formed, schemas are maintained in the face of contradictory evidence through the processes of distorting, not noticing, and discounting contradictory information or by seeing this information as an exception to the schematic, and therefore ‘normative’ rule” (1994, p. 268).

Developmentally, humans construct schema from the time they are born. Children under the age of 6 are considered to be highly impressionable, taking in their surroundings at astounding rates (Urban Child Institute, 2014). Neurologically, from conception to age 3, a child’s brain undergoes

an impressive amount of change. At birth, the brain already contains almost all of the neurons it will ever have (Urban Child Institute, 2014). It doubles in size in the first year, and by age 3 it has reached 80 percent of its adult volume (Urban Child Institute, 2014). Additionally, from age 2 or 3, the brain has twice as many synapses as it will have in adulthood (Li & Sheng, 2003). This excess of synapses in the first three years makes the brain especially responsive to external input (Li & Sheng, 2003).

Considering the rapid construction of schema and the level of impressionability in preschoolers, it is important for agricultural communicators and educators to understand how modern children's television series are framing agriculture. Framing refers to mass communication's framing theory, which suggests how something is presented to an audience (the frame) influences how people process that information. Frames are thought to influence an audience's perception by not only telling the audience what to think about, but also how to think about the given subject or content (Scheufele, 1999). By gaining insight into the framing of agriculture in preschool television programming, agricultural communicators and educators can better anticipate the schema young children have formed about the industry prior to participation in school and extracurriculars.

Purpose & Research Objectives

The purpose of this study was to evaluate the use of agriculture in Disney Junior's animated television program *Mickey Mouse Clubhouse*. This study was driven by the following research objectives:

1. Quantify the number of visual references made to agriculture, farming, production livestock or the like in *Mickey Mouse Clubhouse*'s farm-centric themed collections, "Mickey and Donald Have a Farm" and "Mickey's Farm Fun-Fair!"
2. Describe the way in which *Mickey Mouse Clubhouse* frames agriculture in its farm-centric themed collections.

Methodology

For the purpose of this study, content for analysis was sampled from one television series on one network. In choosing the television series and network, ratings, viewership numbers and accessibility were considered. In October 2014, national ratings put the 24-hour Disney Junior channel at No. 1 for preschool-dedicated networks in total viewers (494,000), children aged 2 to 5 (243,000), and boys aged 2 to 2 (122,000) for the nineteenth straight month (Lord & McTeague, 2014). It was also reported to be the No. 1 preschool-dedicated network for the sixteenth straight month for girls aged 2 to 5 (122,000) as well as No. 1 for the seventeenth straight month for women aged 18 to 49 (91,000) (Lord & McTeague, 2014). Disney Junior programming is available in more than 98 million U.S. homes (McTeague, 2013). Internationally, its reach extends to 140 countries and 393 million households (McTeague, 2013). Of the series aired on the 24-hour Disney Junior channel, *Mickey Mouse Clubhouse* ranks first in total viewership for children aged 2 to 5 (Lord & McTeague, 2014). The Emmy-award nominated series airs several days a week in multiple time slots per day (Disney Junior Media Net, 2014). Currently, 116 episodes of *Mickey Mouse Clubhouse* have been produced (TV Guide, 2015).

Due to their popularity, consistent viewership ratings and accessibility as well as their relevance to this study by having farm-centric themed collections, the 24-hour Disney Junior channel and *Mickey Mouse Clubhouse* were chosen. After determining which network and series would be used for the content analysis, the researchers searched iTunes to find episodes that contained content related to agriculture, farming, production livestock or the like. The iTunes search results included

two episode collections with farm-centric themes. An iTunes collection is a group of episodes (in this case, five for each collection) that share related themes and/or character appearances. The episodes may be from various seasons of the show, but have been gathered into a “one-download” package for a viewer, similar to buying an album of music rather than a single song. The two episode collections identified in the search were “Mickey and Donald Have a Farm” and “Mickey’s Farm Fun-Fair!” The collections were purchased and downloaded via iTunes for use in the study. The ten episodes included in the two collections are listed in Table 1.

Table 1
List of Episodes, Season Aired, and Air Date

Episode Name	Season	Air Date
Mickey and Donald Have a Farm	Season 4	11/05/2012
Goofy’s Petting Zoo	Season 1	03/09/2007
Clarabelle’s Clubhouse Moosical	Season 2	02/21/2009
Goofy the Homemaker	Season 2	01/26/2008
Donald Hatches an Egg	Season 3	07/13/2012
Mickey’s Farm Fun-Fair!	Season 4	08/16/2013
Clarabelle’s Clubhouse Carnival	Season 2	05/10/2008
Mickey’s Big Job	Season 2	06/23/2008
Goofy’s Thinking Cap	Season 3	03/09/2012
The Go Getters	Season 3	09/26/2011

A summative content analysis research design was used to complete the study. Summative content analysis starts with identifying and quantifying certain words or content with the purpose of understanding the contextual use of the words or content. This quantification is an attempt not to infer meaning but, rather, to explore usage (Hsieh & Shannon, 2005). In this study, summative content analysis was used to quantify how often Disney Junior’s *Mickey Mouse Clubhouse* presented content related to agriculture and how that content was framed.

Two researchers watched each episode closely, quantifying and coding visual references made to agriculture, farming, production livestock or the like. In addition, for each episode, the researchers summarized and coded the plot, characters, setting, and framing of agricultural references, as they personally understood them. Finally, any stereotypes, misinformation, or other contextual uses relevant to this study were also logged and coded. Throughout the content analysis, the pair of researchers conducted coder checks to ensure reliability. After viewing all 10 episodes, the researchers compared coding and notes and used qualitative measures to evaluate the content and fulfill the study objectives.

Findings

This study is aimed to evaluate how agriculture is framed on one of Disney Junior’s most popular shows, *Mickey Mouse Clubhouse*. The show, which features the Sensational Six (Mickey Mouse, Minnie Mouse, Pluto, Goofy, Daisy and Donald) as well as other characters, is a learning-focused series that presents audiences stimulating challenges built around a theme of the day:

Through a dynamic, play-along experience that transports them through locations, young

viewers develop early math skills and learn to identify shapes, patterns and numbers and decipher picture puzzles. Mickey and his pals help advance and reinforce the episode's learning through handy gizmos and gear, including the Mousekedoer, Mouseketools and a transportable device called Toodles. (Disney Junior Media Net, 2014)

The show has a dialogue format, making it feel as though Mickey and his friends are talking directly to the viewer. Each episode begins with the Sensational Six singing the *Mickey Mouse Clubhouse* theme song and introducing themselves. Afterward, Mickey enters the clubhouse and announces the theme, setting or problem to be solved for the day. The gang calls on Toodles, its helpful, magical device, to introduce the Mousketools they will rely on to make it through the day successfully. After solving their problems, the group reunites and sings the closing "Hot Dog!" song, celebrating their daily accomplishments. Each episode runs approximately 24 minutes.

Of the 10 episodes analyzed, only two, "Mickey and Donald Have a Farm" and "Mickey's Farm Fun-Fair!" were set at the Clubhouse Farm. These were the two episodes that headlined the iTunes collections. Their plots were both centered in agriculture; several references to farming and production livestock were made during the episodes. In "Mickey and Donald Have a Farm," the friends, dressed in stereotypical "farm" boots, flannel shirts, cowboy-style hats and overalls, travel to the Clubhouse Farm via the "clickety-clack tractor" (a red compact utility tractor). The Clubhouse Farm features a barn, silo, chicken coop with egg chutes, apple orchard, and cornfield. It appears to house cows, pigs, chickens, rabbits, a horse, and a goat. Upon entering the farm, Mickey says, "Here, we grow fruits and vegetables and raise animals." Walking past the cows, which are brown and all have udders, Goofy stops and says, "Howdy, girls!" Then, the friends break into song, singing, "Mickey and Donald have a farm, meeska mouska doo, and on our farm we have lots of fun, meeska mouska doo."

Afterward, Clarabelle Cow, an anthropomorphized black bovine who loves music and has a band of chickens that follow her and sing, enters the scene. She introduces her singing chickens and says, "Little darlings are so happy when they sing, and when they are happy, we get more eggs." Things appear to be going smoothly on the farm, when suddenly a huge wind gust comes in and blows all the animals away. Sincerely worried, Mickey says, "That wind could really wreck the farm and if that happens, we won't have any food." The group gathers together and runs along to find the source of the wind. After determining the wind was a product of Peg-Leg Pete's windmill and shutting it down, Mickey and his pals go about finding the missing farmyard animals. They decide to plant lettuce and carrots to lure the animals back to the Clubhouse Farm. Using the clickety-clack tractor, Mickey plants seeds that immediately turn into carrots and lettuce when watered. As they plant and grow their vegetables, the group sings, "Growing vegetables on the farm is always lots of fun. Our tractor likes to plant the seeds and with a clickety-clack and a poppity-pop, things begin to grow."

As the lettuce and carrots pop up from the soil, the rabbits and goat appear. However, the horse can be heard, but not seen. Looking up, the group realizes the horse is balanced atop the Clubhouse barn on the weathervane. Using a blimp suit from the Mousketools, the horse is able to float down to the ground. The group moves on, finding the pigs in the chicken coop and helping them to slide down the egg chutes. They also sing a song to entice the chickens to come out of hiding. Counting the animals in their wagon, Mickey and his friends realize the last ones to be found are the cows. Looking up on the hill, Goofy sees "Mrs. Cow" swinging in a tire swing. The group uses another Mousketool, a fishing pole, to pull her out of the swing. To end the episode, the Sensational Six return the animals to their homes at the Clubhouse Farm and return to the Clubhouse to sing the

"Hot Dog!" song.

In “Mickey’s Farm Fun-Fair!,” the gang, again dressed in stereotypical “farm” apparel, drives the clickety-clack tractor to a fair at the Clubhouse Farm. The fair is held in a circular arena made of straw bales and features an egg and spoon race, ring the bell game, and bakeoff. During the bakeoff, one of Clarabelle Cow’s singing chickens becomes surprised and lays a white egg on the stage. The rolling egg causes Clarabelle Cow to slip on stage and throw her “moo-muffins” everywhere. Mickey calls on Toodles to bring a Mousketool to help gather the moo-muffins up. Once the moo-muffins are collected, the group breaks into a “geometric jamboree,” dancing on shapes while singing, “Hold onto your hats, hitch up your pants, we are doing the fun fair square dance.” They follow the dance with a big fruit and vegetable contest. Minnie announces to the group her prize tomato, which is small and shriveled, is in need of water. The Mousketool collection comes to the rescue, bringing an elephant that suctions water out of a nearby pond and sprays it on Minnie’s tomato. The tomato magically grows to three times its size and becomes vibrant red. The contest continues, and a new character, Willie the Giant, enters the fair. Willie brings a giant peach to the contest, but he drops it and it becomes a runaway peach. Luckily, the clickety-clack tractor saves the day by stopping the peach. The episode ends with all the characters winning a blue ribbon and singing the “Hot Dog!” song.

The remaining eight episodes featured a variety of animals; however, aside from featuring the animals, minor references were made to farming or animal agriculture. “Goofy’s Petting Zoo,” “Clarabelle’s Clubhouse Moosical,” “Clarabelle’s Clubhouse Carnival,” and “The Go Getters” featured one or more species of production livestock more than 50% of the runtime. In “Goofy’s Petting Zoo,” Goofy is in charge of caring for eight cows, 10 pigs, and an elephant at the petting zoo. However, he falls asleep and the animals escape. In their search, they find the cows stranded on an island in the middle of a pond. They use a sailboat to bring four cows at a time back to shore. While being rescued, the cows stand on their hind legs and moo a happy tune. The pigs are found riding on a Ferris wheel being operated by Peg-Leg Pete and the elephant is hanging in a tree. The gang uses its Mousketools to round up the animals and return them to the petting zoo.

“Clarabelle’s Clubhouse Moosical” begins with Clarabelle Cow wanting to host a musical. Unfortunately, her singing chickens have lost their voices and cannot put on the show. Clarabelle relies on the Sensational Six to help her put on the musical, in which they sing popular nursery rhymes. After the first performance, the chickens cluck, clap, cheer, and jump with excitement. However, after the second song, the chickens appear less well, sitting on chairs at a table and drinking what appears to be hot tea. By the time the production is over, the chickens are all better and are able to participate in the grand finale, singing along with all the friends.

In “Clarabelle’s Clubhouse Carnival,” Clarabelle Cow announces the chickens are running out of corn to eat. To get more corn, Mickey and Clarabelle decide to host a carnival where guests pay in corn to enter, eat, or play games. The chickens as well as a cow and pig hang around the carnival as the group spends the day trying to fill a giant jar with corn. Once it is full, they begin to celebrate, but something goes wrong. One of the carnival games zaps the jar, turning all the corn to popcorn. At first, the group is not sure what to do, but then they realize the chickens like the popcorn and can eat it instead.

“The Go Getters” features three giant baby chicks who have fallen from Willie the Giant’s farm, which is set in the clouds. The Go Getters, a secret agent group made up of Minnie, Daisy and Clarabelle Cow, use their detective skills to find the giant baby chicks. They follow their footprints and the broken white eggshells from which they hatched to locate them and return them to Willie the Giant.

“Donald Hatches an Egg,” “Mickey’s Big Job,” and “Goofy’s Thinking Cap” featured one or more species of production livestock less than 50% of the runtime. “Donald Hatches an Egg” features the gang as they try to find the mother of an egg Goofy found in the woods. The egg appears to prefer Donald caring for it because it “shivers” when he is near it. The group uses a scarf to keep the egg warm while they travel around and try to find its owner. They first check with the birds in the woods, but it does not belong to them. Then, they ask the chickens at the petting zoo. Gladys, the hen, tells Goofy in “chicken talk” the egg does not belong to anyone at the petting zoo. In a thought bubble, the friends compare their mystery egg to a chicken egg, seeing it is a different shape and color (the chicken egg is brown). The group moves to a turtle at the pond, but the egg does not belong to the turtle either. While the group stands around puzzled, the egg begins to crack and hatches a baby alligator. They take the alligator to the river and find its mother and two siblings there.

In “Mickey’s Big Job,” Willie the Giant asks Mickey to keep an eye on his giant farm in the clouds while he goes to visit his mother. Mickey and his pals use a hot air balloon to float up to the farm. Upon arrival, they find a list of chores tacked to the door of his red barn Willie left for them to complete while he was gone. The chores include cleaning Willie’s room, watering his garden and feeding his giant chickens. The group completes the first two chores and then moves on to the chicken coop, where they find a bag of giant corn kernels. They feed the chickens, which lay brown eggs, five kernels apiece.

“Goofy’s Thinking Cap” features the Sensational Six doing a scavenger hunt, hosted by Clarabelle Cow. The single reference to agriculture is made on the scavenger hunt list, when the group is instructed to find a giant egg. They float up to Willie the Giant’s farm and ask to have an egg from his giant chicken coop. He obliges, and they go in the coop to collect a giant white egg.

The remaining episode, “Goofy the Homemaker,” did not contain any references to farming or animal agriculture. Instead, the episode focuses on Goofy constructing a birdhouse for his new friends, Mama and Baby Red Bird. It is significant to note the inclusion of this episode in a farm-centric collection. While it did not feature farming or animal agriculture directly, the plot was focused on constructing housing for an animal species. Construction of barns and housing of animals is indirectly relative to an agricultural lifestyle.

During the content analysis, the researchers quantified by method of coding the visual references made to agriculture in the shows (see Table 2).

Table 2

List Quantifying Visual References Made to Agriculture

Reference Object	% of Episodes Viewed In
Chickens	70%
Red Barn	60%
Clarabelle Cow	60%
White Eggs	50%
Silo	40%
Straw	40%
Cows (not including Clarabelle Cow)	30%
Pigs	30%
Cornfield	30%
Farmer	30%
Cowboy-Style Hat	30%
Corn Kernels (used as chicken feed)	30%
Tractor	20%
Rabbits	20%
Brown Eggs	20%
Apples	20%
Carrots	20%
Corn on the Cob	20%
Horse	10%
Goat	10%
Lettuce	10%
Carrots	10%
Apples	10%
Seeds	10%
Planting Rows	10%
Peppers	10%
Pumpkins	10%
Tomatoes	10%
Peaches	10%

Discussion

The qualitative and quantitative data collected during the content analysis was used to describe the way in which *Mickey Mouse Clubhouse* frames agriculture in its farm-centric-themed collections. The content analysis revealed, in all 10 episodes, agriculture was framed in a generally positive context. Researchers determined the context to be positive because, aside from some implausible scenarios, farming and its related operations appeared to be enjoyable and entertaining for the characters. The positive framing was most apparent in the two collection headliners: “Mickey and Donald Have a Farm” and “Mickey’s Farm Fun-Fair!” The catchy tunes sang by Mickey and his pals in “Mickey and Donald Have a Farm” proclaim “On our farm we have lots of fun,” and “Growing vegetables on the farm is always lots of fun.” Mickey also impresses on viewers the importance of agriculture, saying “That wind could really wreck the farm, and if that happens, we won’t have any

food.” The group appears to enjoy working as they plant seeds, pick apples, and corral the livestock. The Clubhouse Farm is clean, organized and vibrant, and Mickey and his friends are dressed neatly. Additionally, the content analysis for this episode noted Goofy twice refers to Mickey’s milking cows as female in gender. When entering the farm, Goofy says, “Howdy, girls!” Then, when he notices the cow stuck in the tire swing, he refers to her as “Mrs. Cow.” Subtly slipping this agriculture fact (that only female species can be milked) into the episode is evidence of how preschool-dedicated networks can and are informally educating young children about agriculture.

In “Mickey’s Farm Fun-Fair,” an agricultural fair is accurately shown to be a lively place filled with games, food contests, animals, dancing, and awards. The other episodes also presented agriculture and production livestock in a positive context, showing Mickey and his friends engaging in delightful relationships with all of the animals they encounter. They commonly refer to the animals as “friends,” “darlings,” and “pals.”

The content analysis did reveal a few instances of inaccuracies and unrealistic situations; however, some level of fantasy was to be expected because of the cartoon nature of the show. The most inaccurate and improbable scenes are listed as follows:

“Mickey and Donald Have a Farm”

- The clickety-clack tractor is a compact utility tractor that plants and waters seeds all in one motion. The planted seeds immediately turn into fresh produce upon being watered.
- The farm animals were picked up and carried away by a wind gust.
- The Clubhouse horse was found balancing on a weathervane atop of the barn.
- The Clubhouse pigs slide down the egg chutes to escape the chicken coop.

“Clarabelle’s Clubhouse Moosical”

- Clarabelle Cow’s chickens can sing, clap, bow, sit at a table, and drink from cups.
- Minnie’s tomato magically grows to three times its size upon being watered.
- Clarabelle’s Clubhouse Carnival:
- The corn kernels used as feed for the chickens turn into popcorn after being zapped by a carnival game (feed corn is not the same as popcorn).

“Goofy’s Petting Zoo”

- Mickey and his friends are able to rescue the cows stranded on an island by putting them in a sailboat. As they return to shore, the cows stand on their hind legs and moo a tune.
- The pigs ride a Ferris wheel, each in their own car.

Other Episodes

- In five episodes, the red-and-brown-feathered chickens lay white eggs; however, in two other episodes, the same chickens’ eggs are brown.

In the egg industry, red or brown breeds of hens do not produce white eggs. As the American Egg Board states, “The breed of hen determines the color of the shell. Among commercial breeds, hens with white feathers and ear lobes lay white-shelled eggs; hens with red feathers and ear lobes lay brown eggs” (2015).

Conclusions

As agricultural communicators and educators, it is important to note the context and extent of agriculture's presence on TV. This content analysis only begins to unravel the framing and use of United States agriculture in preschool-aged animated television. As a \$775.8 billion industry that employs 16.5 million Americans (U.S. Department of Agriculture, 2014), agriculture plays a direct and essential part in the livelihoods of each citizen. With approximately 24 million children aged 0 to 5 living in the U.S. (U.S. Census Bureau, 2014), preschool-aged television offers agricultural communicators and educators a large platform for presenting young minds positive and accurate schemata about agriculture. Furthermore, parents of preschoolers who watch animated series alongside their children supply a secondary audience for informal agricultural education. The 24-hour Disney Junior channel was ranked as the No. 1 preschool-dedicated network for seventeen straight months for women aged 18 to 49 (91,000). This metric demonstrates uses and framing of agriculture on shows like *Mickey Mouse Clubhouse* are routinely reaching far more than just the average preschooler.

Fortunately, the writers for *Mickey Mouse Clubhouse* have presented agriculture and its likeness to preschoolers in a constructive and cheerful framework; however, the practicality and progressiveness of some scenes is questionable. For example, it would be more ideal to see Mickey driving a planting tractor or combine than a compact-utility tractor, which is reminiscent of antique farm equipment. Additionally, one specific element that appeared to be lacking was education specific to production. Though Mickey and his friends did a lot of teaching in regard to names, numbers, shapes, and colors, there was little to be learned about the farming operation. Expanding the lesson to include exercises that teach preschoolers why the different kinds of livestock are raised or the difference between feed corn and sweet corn (or white eggs versus brown eggs) would be a great way to introduce preschoolers and their growing schema to production agriculture. Even concepts as specific as using global positioning systems (GPS) on equipment, how grain is moved from the field to feed, or working in controlled environmental animal production facilities could be explored for subject matter.

Recommendations

The farm-centric scenes and references in *Mickey Mouse Clubhouse* and other similar preschool-aged animated television series are helping to plant the seed of what agriculture is like in the schema of thousands of preschoolers nationwide. Because schemata have a tendency to remain unchanged, even in the face of contradictory information, it is critical that, when possible, agricultural communicators and educators assist in the creation and production of such television series to ensure agriculture and production animals are portrayed accurately and positively.

Multiple recommendations originated as a result of this preliminary study. First, the researchers recommend additional in-depth studies be conducted to review other children's television programming as well as examine the semiotic meanings of the images portrayed through such shows. Second, future research related to this topic include experimental fieldwork that explicitly observes and/or interviews preschool-aged children. While content analysis establishes a foundation for evaluating agriculture's relationship with animated television programming, experimental research is much more ideal for understanding the perceptions and schemas actually being absorbed and constructed in the minds of young children. Sample hypotheses could explore whether animation of agriculture lessons improves understanding and permanence of content as well as if positive perceptions of agriculture are more probable when the lesson is taught by an already established, well-liked character (comparable to Mickey Mouse). Third, the researchers recommend more persuasive contact be made with the Disney-ABC Television Group to investigate who specifically composes agriculture-related

content in their shows. The researchers for this study, in a quest to determine what the show's content writers' backgrounds are in agriculture, did speak with the producer of *Mickey Mouse Clubhouse*, Mark Seidenberg; however, Seidenberg referred the researchers to ABC's legal department, who stated the group was unwilling to answer the questions posed. In the eyes of the researchers this is unfortunate because talks with Disney-ABC Television Group would provide more insight into the show curriculum and framing of episodes. Furthermore, contact with Disney-ABC Television Group could establish a porthole for the agriculture industry in regard to expanding educational resources for preschool-aged children via animated television. Speculation is that a large reputable group or organization (i.e. American Farm Bureau, USDA, National Education Association, etc.) might have more success coordinating talks with Disney-ABC Television Group. If a relationship with Disney-ABC Television Group is beyond the industry's reach, it is proposed academics explore public arenas available for creating and disseminating accurate and exciting animated content to children. Public Broadcasting Service, YouTube, and preschools are possible platforms that may have an interest in non-profit educational content. Given an ideal funding and circulation situation, the researchers envision a modern day *Schoolhouse Rock!* focused on U.S. food production and distribution. *Schoolhouse Rock!* was an American interstitial series of animated musical educational shorts that originally aired during Saturday morning children's programming from 1973 to 1985. The show is known for its memorability and recall capacities in viewers even 20 years after it first aired (Engstrom, 1995).

In conclusion, additional studies can assist agricultural communicators and educators in understanding what changes can be made to positively influence and expand agriculture's representation in all children's television media. Providing accurate and progressive agriculture lessons in cartoons is one potential way to initiate positive schema of agriculture and magnify agricultural education in the minds of young children.

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