EXPOSING AGRICULTURAL COMMUNICATIONS STUDENTS TO THE HAYAKAWA-LOWRY NEWS BIAS CATEGORIES: A DESCRIPTIVE STUDY

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CHAPTER 1

INTRODUCTION

Background and Setting

Objective reporting has been the gold standard and a guiding principle of news journalism in the United States since the late nineteenth century, when the U.S. press system underwent significant changes. "As the press moved from open partisanship toward professionalized news reporting, the principle that reporters should remain neutral about the subjects they covered became the norm" (Fritz, Keefer, & Nyhan, 2004, pp. 36-37). Over time, objectivity slowly evolved as a "definitive canon of American mainstream journalism" (Lane, 2001, p. 1).

But "lately 'objectivity' has come under fire, a casualty of a bitter battle over the future of journalism" (Mindich, 1998, p. 1). Brooks, Kennedy, Moen, and Ranly (2005) observed, "American journalism is under threat from skepticism about how well today's journalists are fulfilling their historic roles" (p. 7).

The State of the Media 2008 report by the Project for Excellence in Journalism (2008) included a special report about public attitudes regarding the media. Report author Robert Ruby (2008) noted that "in 2007, the public's overall view of the press remained by many measures as negative as in the recent past and notably worse than in the mid-1980s" (¶ 3). In fact, 55 percent of Americans believe "journalists are often inaccurate," (Ruby and the Project for Excellence in Journalism, 2008, ¶ 15), 53 percent believe

Journalists "do not care about the people they report on" (¶ 15), 55 percent believe journalists "biased" (¶ 15), 66 believe journalists are "one-sided" (¶ 15), and 66 percent believe journalists "try to cover up their mistakes" (¶ 15).

These statistics reveal the public believes the media do not fulfill the goal of objectivity. Yet, as Lane (2001) observed, even "American journalists disagree on what [objectivity] is (a definition), how to measure it (a standard), and how to do it (a technique)" (p. 1). Lane (2001) also astutely noted:

> If a student of journalism today were to ask professional journalists what journalistic objectivity was, he would probably get as many answers as there were journalists. If he looked for the answer in journalism literature, he would get as many answers as there were sources. (p. 79)

The Society of Professional Journalists added fuel to the fire when it dropped the term *objectivity* from its Code of Ethics (Society of Professional Journalists, 1996) in 1996 and replaced it with words such as *accuracy* and *comprehensiveness*. In addition, *the truth* was changed to simply *truth*.

Myrick (2002, November) explained that the debate about the appropriateness and role of objectivity as a journalistic standard generally centers around "a pair of questions: Is the achievement of objectivity in news reporting even possible, and is the expectation of objectivity on the part of the news-consuming public a reasonable one?" (p. 50).

The answers to these questions are beyond the scope of this thesis and have been addressed by a plethora of researchers, scholars, journalists and lay people. A Google™ search of the terms "objectivity" and "journalism" yields more than 515,000 results in the form of websites, scholarly articles, videos, images, and books, and the debate continues.

However, despite the controversy surrounding objective journalism, Mindich (1998) observed it "is still considered a goal in journalism" (p. 3). Therefore, while objectivity remains a goal of journalism, it is important journalists and journalism education programs continue to emphasize this standard.

Statement of the Problem

Many studies that examine the objectivity level of American journalism recommend journalists be trained so they are aware of their bias statements (Haygood, Hagins, Akers, & Kieth, 2002; J. King, Cartmell, & Sitton, 2006). Furthermore, Whitaker and Dyer (2000) said "colleges and universities should fully utilize journalistic and agricultural curricula to enhance objectivity of future journalists" (p. 133). Specifically, J. King, et al. (2006) concluded "journalism and agricultural communications students should be exposed to the Hayakawa-Lowry news bias categories so they can understand how to write more objectively" (p. 44). However, a gap exists in the literature about the effectiveness of methods to teach objectivity to students who are studying journalism and aspects of news writing, such as interviewing, reporting, writing, and editing.

Purpose of the Study

The purpose of this study was to determine if and/or how the objectivity level and use of judgment statements in agricultural communications students' news writing are affected after those students attend a lecture and receive a handout about the Hayakawa-Lowry news bias categories.

Research Questions

The study addressed the following research questions:

1. What is the objectivity level of agricultural communications students' news writing before and after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
2. How do agricultural communications students use judgment statements in their news writing before and after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
3. Does the objectivity level of agricultural communications students' news writing change after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
4. Does agricultural communications students' use of judgment statements in their news writing change after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
5. How do agricultural communications students perceive the objectivity level of their news writing before and six months after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
6. Do agricultural communications students' perceptions of the objectivity level of their news writing match the objectivity level of their writing as measured by the Hayakawa-Lowry methodology?
7. How do agricultural communications students perceive their use of judgment statements in their news writing before and six months after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?

8. Do agricultural communications students' perceptions of their use of judgment statements in their news writing match their use of judgment statements as measured by the Hayakawa-Lowry methodology?

Operational Definitions

Agricultural communications – Academic programs involving a variety of communications specializations such as journalism, advertising, public relations, etc. (Bailey-Evans, 1994; Deering, 2005).

Agricultural communications students – A student classified as a freshman, sophomore, junior, senior, or graduate student at Oklahoma State University and enrolled in AGCM 3113: Writing for Agricultural Publications during the 2008 spring semester.

Balance – As measured by the Hayakawa-Lowry methodology, balance is the degree to which judgment statements in a piece of writing are distributed between 1) judgment sentence/attributed/favorable (JAF) or judgment sentence/unattributed/favorable (JUF) and 2) judgment sentence/attributed/unfavorable (JAU) or judgment sentence/unattributed/unfavorable (JUU). A piece of writing approaches balance when the difference between the percentage of favorable and unfavorable judgment statements approaches zero.

Bias – Any tendency in news writing or journalistic writing "to deviate from an accurate, neutral, balanced and impartial representation of the 'reality' of events and social world according to stated criteria" (McQuail, 2000, p. 491).

Content analysis – "A research technique for the objective, systematic, and quantitative description of manifest content of communications" (Berelson, 1952, p. 18).

Equally objective and judgmental writing – A group of sentences in which the

objectivity level is 2.00.

Favorable – "Expressing approval, giving a result that is in one's favor, tending to promote or facilitate" (Mish, et al., 1999, p. 425).

Inference statement – "Inference sentences are subjective and not immediately verifiable" (Lowry, 1971, p. 574), "statements about the unknown based upon the known … where a writer draws an inference from some set of observable data" (S. I. Hayakawa & Hayakawa, 1990, p. 24).

Journalism – "Informational reports of recent or current events of interest to the public" (McQuail, 2000, p. 498).

Journalistic writing – Writing that demonstrates the characteristics of journalism. In this study, journalistic writing is synonymous with news writing.

Judgment statement – Judgment sentences express the writer's opinions (Lowry, 1971) and "are expressions of the speaker's approval or disapproval of the occurrences, persons, or objects he is describing" (S. I. Hayakawa & Hayakawa, 1990, p. 25). Hayakawa and Hayakawa (1990) further stated a judgment is a conclusion that evaluates previously observed facts.

More judgmental than objective writing – A group of sentences in which the objectivity level is 2.01 to 3.00.

More objective than judgmental writing – A group of sentences in which the objectivity level is 1.00 to 1.99.

News bias category – One of nine categories of news sentences defined by the efforts of S.I. Hayakawa and expanded by D.T. Lowry.

News writing – Writing that demonstrates the characteristics of journalism. In this

study, news writing is synonymous with journalistic writing.

Objectivity – A theoretically contested term used to describe ideological characteristics of news writing or journalistic writing. "These include factual accuracy, lack of bias, separation of fact from comment, transparency about sources, [and] not taking sides" (McQuail, 2000, p. 500)

Objectivity level (or objectivity mean) – A mean score used to designate the level of objectivity of a piece of writing or group of stories using the Hayakawa-Lowry methodology. The Hayakawa-Lowry methodology measures the objectivity level by coding sentences in a piece of writing or group of stories as report, inference, or judgment statements. The reports, inferences, and judgments are then given a score of 1, 2, or 3, respectively, and a mean is calculated. When considering objectivity means for a story, a lower mean signifies more objective writing (J. King, et al., 2006; Sitton, Terry Jr., Cartmell, & Key, 2004). On the contrary, a higher mean represents less objective writing.

Other statement – A sentence that does not meet the requirements to be designated as a report, inference or judgment statement, such as a question or incomplete sentence.

Report statement – "Report sentences are factual and verifiable statements" (Lowry, 1971, p. 574). "Reports adhere to the following rules: first, they are verifiable; second, they exclude, as far as possible, inferences, judgments, and the use of 'loaded' words" (S. I. Hayakawa & Hayakawa, 1990, p. 23).

Unfavorable – "Opposed, expressing disapproval, not propitious" (Mish, et al., 1999, p. 1290).

Limitations of the Study

The following were limitations of the study:

1. Data collection was limited to students enrolled in AGCM 3113: Writing for Agricultural Publications during the 2008 spring semester at Oklahoma State University.
2. The results of this study may not be generalized beyond the study population.
3. This study was not designed to establish causality between higher levels of objectivity in students' writing and attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories. Rather, the study sought to determine if the objectivity level of agricultural communications students' news writing changes after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories.

Basic Assumptions of the Study

The following assumptions were made concerning this study:

1. The opinions expressed by participants accurately reflect their true perceptions.
2. Students who participated in this study are representative of a typical group of agricultural communications students at Oklahoma State University.
3. Students who participated in this study were "highly motivated" (Bourque & Fielder, 1995, p. 27) about news writing because of their selected major and enrollment in AGCM 3113: Writing for Agricultural Publications.
4. Students who participated in this study performed to the best of their ability on each news writing assignment.

5. Students who participated in this study were present for the Hayakawa-Lowry news bias category lecture conducted during class.
6. Set 2 of the news writing assignments analyzed in this study was written after participating students attended a lecture and received a handout about the Hayakawa-Lowry news bias categories
7. "Report" statements are generally perceived as more objective than "inference" or "judgment" statements (Lowry, 1985).
8. The coders fully understood the coding methodology and applied the codes accurately and consistently.
9. The coders fully understood each sentence analyzed in the study.
10. The coders independently and consistently determined the topic for each news writing assignment.

Significance of the Study

"Objectivity has been and still is accepted as a working credo by most American journalists, students and teachers of journalism. It has been exalted by leaders of the profession as an essential, if unattainable, ideal" (Brooks, et al., 2005, p. 14). Journalism and agricultural communications students represent the future of news reporting. If these students are expected to pursue objectivity as working professionals, then they should be exposed to training that emphasizes this ideal. More importantly, this training must be effective in affecting the objectivity of students' writing.

This study will give students the opportunity to use the concepts addressed in the Hayakawa-Lowry news bias category training to change the objectivity level of their writing. The results of this study also may help communications educators determine best

practices for designing and planning objectivity curriculum for journalism and agricultural communications students.

CHAPTER II

REVIEW OF LITERATURE

Chapter Overview

The purpose of this study was to determine if and/or how exposing agricultural communications students to the Hayakawa-Lowry news bias categories affects the objectivity level of those students' writing. Chapter I provided an introduction to the study, and this chapter includes an overview of theory and normative theories of the press, specifically focusing on the social responsibility theory of the press. The chapter also includes the theoretical framework for this study. The chapter identifies, outlines, and discusses literature related to objectivity and bias in the media, objectivity in journalism education, the history of content analysis methodology, the Hayakawa-Lowry content analysis methodology, and survey methodology and design.

Theory Overview

Defining Theory

Creswell (2005) stated "in quantitative research we seek to test whether the independent variable *influences* the outcome or dependent variable" (p. 125). A theory is "a set of interrelated constructs, definitions, and propositions that present a rational view of phenomena by explaining or predicting relationships among those elements" (Camp, 2001, ¶ 14). More simply stated, theories can explain how and why independent variables can explain or predict dependent variables (Creswell, 1994). Thus, a theory can either

"precede and inform research or … emerge from and explain observations" (Camp, 2001, ¶ 21).

In research that "deals with human in unpredictable situations," (Creswell, 2005, p. 126), the role of theory is to establish a "cause and effect relationship between variables with the purpose of explaining and predicting phenomena" (Best & Kahn, 1993, p. 9). This is the concept of "probable causality" (Creswell, 2005, p. 126), through which researchers seek to "establish a likely cause-and-effect relationship between variables, rather than *prove* the relationship" (p. 126).

Classifying Theories

Creswell (1994) identified three types of theories: grand theories, middle-range theories, and substantive theories. He explained that grand theories are used to explain broad categories of phenomena and are most commonly used in the natural sciences. The next group, middle-range theories, falls between grand theories and "working hypotheses of everyday life" (p. 83). The last group, substantive theories, is "restricted to a particular setting, group, time, population, or problem" and is often expressed as propositions or hypotheses.

In addition to Creswell's (1994) classification of theories, theories of mass media have been placed into groups according to how they are formulated and tested (Bruce, 1999; McQuail, 1992). Some of the categories of mass media theory include social scientific theories, working theories, and normative theories. Social scientific theories are "derived from objective observation, using quantitative and qualitative techniques, to understand generally abstract notions of cause, effect, or the nature and purpose of the mass media in society" (Bruce, 1999, p. 79). Working theories are often formulated by

members of the media and are practical in nature. As Bruce (1999) explained, "they answer the question 'how can this end be met?' or 'why are things done this way?'" (p. 79). Another type of theory, normative theory, explains the norms or standards of behavior that mass media institutions should fulfill within a social system. "Norms consist of a system of rules and standards appropriate to a given situation or role" (Bruce, 1999, p. 82).

Normative Theories of the Press

This thesis sought to answer eight research questions from a normative perspective. Baran and Davis (1995) noted that normative theories "don't describe things as they are nor do they provide scientific explanations or predictions. Instead, they describe the way things should be if should ideal values or principles are to be realized" (p. 75). McQuail (1983) conjectured that six normative theories can be used to explain the role and purpose of the press: 1) authoritarian theory, 2) free press theory, 3) social responsibility theory, 4) Soviet theory, 5) development theory, and 6) democratic-participant theory. "In each case the theory relates the performance of media to the position taken up by the state towards the transmission of information, comment, and expression" (Watson, 1998, p. 90).

The first four of these theories were first articulated by Fred Siebert, Theodore Peterson, and Wilbur Schramm (1963) in *Four Theories of the Press.* Siebert, et al. "argued that the explanation for the great variation in different mass media systems is rooted in the greater social systems in which the press existed" (Bruce, 1999, p. 82).

Within the social system in which an authoritarian theory exists, the press should "support and advance the policies of the government in power" (Siebert, et al., 1963, p. 7)

and truth was "not the product of the great mass of people, but of a few wise men" (p. 2). However, although an authoritarian press is an "instrument for affecting government policy," (Siebert, et al., 1963, p. 7) it may be owned by the government or private parties.

In the society of the libertarian theory, the press informs, entertains, and sells, but it should chiefly "help discover truth, and to check on government" (Siebert, et al., 1963, p. 7). In a libertarian press system, "truth resides with the masses, and all men have the right to search for and express their truth" (Bruce, 1999, p. 83). This press system is operated primarily under private ownership.

Similar to the libertarian press system, a socially responsible press informs, entertains, and sells. However, the chief purpose of this press system is to "raise conflict to the plane of discussion" (Siebert, et al., 1963, p. 7). A socially responsible press is owned by private parties, but the government may take control to "ensure public service" (Siebert, et al., 1963, p. 7). The social responsibility theory posits it is "no longer enough to report the fact truthfully. It is now necessary to report the truth about the fact" (Commission on Freedom of the Press, 1947, p. 22).

The social system of a Soviet press system dictates the press should "contribute to the success and continuance of the Soviet socialist system" (Siebert, et al., 1963, p. 83). In the Soviet theory, the press is subsidized by the state, free of commercial interests, and is "free to speak the 'truth' [only] as the Party sees the truth" (Siebert, et al., 1963, p. 5).

The development theory and democratic-participant theories evolved from the four theories of Siebert, et al. (1963). The developmental theory conjectures that in some societies, the function of the press is "heavily constrained by economic and political conditions" and "the infrastructure and human talent necessary to maintain mass media

may not be present" (Bruce, 1999, p. 83). Furthermore, the democratic-participant theory of the media posits the press should meet the needs of "active receivers" (Bruce, 1999, p. 83). This theory is a blend of the libertarian and social responsibility theories, but the democratic-participant theory's emphasis on controlling "unchecked commercialization" can result in "monopolization of media institutions" (Bruce, 1999, p. 83).

Social Responsibility Theory of the Press

The social responsibility theory was developed by the U.S. Commission on Freedom of the Press, which was instigated by the National Union of Journalists and organized by Robert M. Hutchins of the University of Chicago (Anderson, 1975; Peterson, 1963). The commission's report, titled *A Free and Responsible Press*, indicted mass media for not meeting the needs of society and claimed "this failure of the press is the greatest danger to its freedom" (Commission on Freedom of the Press, 1947, p. 68). The commission noted it was "no longer enough to report the fact truthfully. It is now necessary to report the truth about the fact" (Commission on Freedom of the Press, 1947, p. 22). This is in contrast to the parent theory of social responsibility theory, the libertarian theory. The libertarian theory, which was developed in the eighteenth and nineteenth centuries, regarded man "as primarily a moral and rational man who was inclined to hunt for the truth and to be guided by it" (Peterson, 1963, p. 95). On the other hand, social responsibility theory was developed in the twentieth century and regarded man "not so much as irrational as lethargic" (Peterson, 1963, p. 95).

Armitage (2001) explained the groundwork for the social responsibility theory was laid from the 1890s to the 1940s by two primary stimuli: examples set and espoused by individual members of the press and public criticism of the press. However, it was not

until Theodore Peterson wrote "The Social Responsibility of the Press" as a part of *Four Theories of the Press* that the theory of a socially responsible press gained widespread recognition (Armitage, 2001).

Peterson (1963) wrote that "freedom carries concomitant obligations; and the press, which enjoys a privileged position under the American government, is obliged to be responsible to society for carrying out certain essential functions of mass communication in contemporary society" (p. 74).

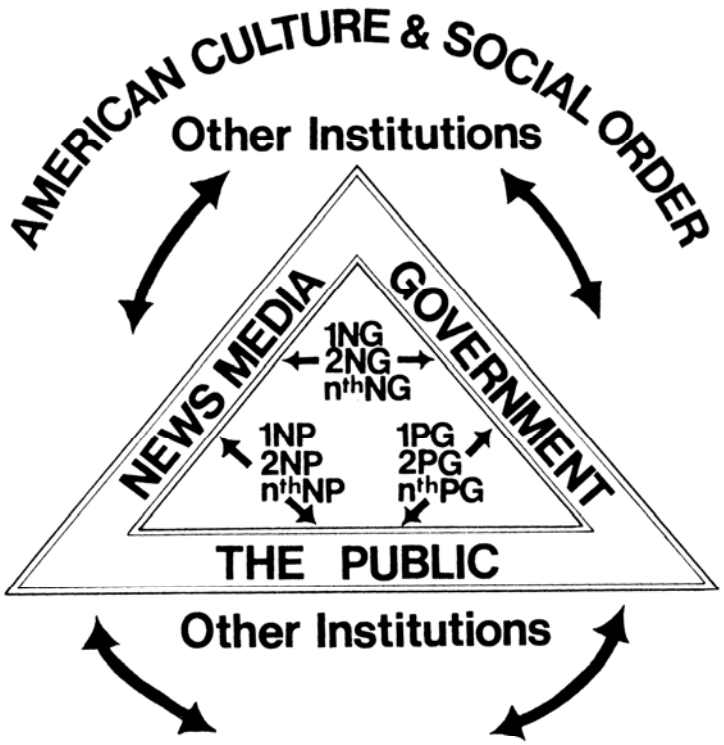
The essential functions of a socially responsible press are the same as the functions as a libertarian press (Armitage, 2001; Vold, 1999). Those functions are: 1) provide information, discussion and debate on public affairs to service the political system, 2) inform the public to make it capable of self-government, 3) serve as a watchdog over government to safeguard the rights of the individual, 4) provide advertising to service the economic system, 5) provide entertainment, and 6) maintain financial independence to remain free from the pressures of outside interests.

However, "if the media do not take on themselves such responsibility it may be necessary for some other agency of the public to enforce it" (Siebert, et al., 1963, p. 5). As Peterson (1963) wrote, "the government must not merely allow freedom; it must actively promote it" (p. 95) by entering into the field of mass communication or forcing the press to carry out the essential functions of mass media.

Both adherents and critics of the social responsibility theory have indicated the press has been deficient in its interpretation and application of the functions of the social responsibility theory (Anderson, 1975; Armitage, 2001; Vold, 1999). This, perhaps, is because the theory does not indicate the role of the functions in relation to each other. For

example, media "owners accept the role of servicing the economic system … but would not have this task be overshadowed by such functions as promoting the democratic process or enlightening the public" (Vold, 1999, p. 10).

Anderson (1975) developed a schema for the social responsibility of the press. The basic elements of the schema include "1) the American culture and social order, 2) the public, 3) the United States form of government, 4) the free news-opinion media comprised of a) the media owner and operators, and b) the newsmen." (Anderson, 1975, p. 2). Anderson's schema is presented in Figure 1.



* News Media, Public and Government are the key institutions in Social Responsibility Theory. Numerous social responsibilities among these key institutions are indicated by the central letters and figures as existing between News Media and Public (NP), News Media and Government (NG), and Public and Government (PG). In addition, these key institutions interrelate with Other Institutions to achieve the mass communication of public affairs information and opinion necessary within the contemporary American Culture and Social Order.

Figure 1. A Schema for the Social Responsibility Theory of the Press (Anderson, 1975)

Anderson's schema (1975) demonstrates that news media, the public and government must fulfill tenets of the social responsibility theory by interacting with each other and other institutions within "the contemporary American Culture and Social Order" (p. 3). Through an extensive review of literature, Anderson (1975) identified 31 tenets of the social responsibility theory. These tenets are presented in Figure 2.

Tenets Regarding Media Owners and Operators	
1. Social responsibility	2. Mutual criticism obligation
3. Higher educational standards	4. Support journalism education
5. Support advanced journalistic study	6. Foster awareness
7. Action reporters	8. Ombudsmen
9. Public confrontation meetings	10. Local press councils
11. Public representatives	
Tenets Regarding Newsmen	
12. Professionalization	13. Responsibility attitude
14. Accuracy in context	15. Broad education
16. Professional education	17. Advance study
18. Self-criticism	19. Professional journals
20. Self-regulation	21. Ethical code
22. Professional association	23. Professional council
24. Citizen awareness	25. Public action
26. Journalism education support	27. Grievance council
Tenets Regarding the Government	
28. Freedom of the press	29. Restricted government activity
30. Government encouragement obligation	31. Advanced journalistic study support

Figure 2. Tenets of the Social Responsibility Theory of the Press (Anderson, 1975)

It is important to note that even this extensive catalog of the tenets of social responsibility is not exhaustive and does not explicitly list all the terms associated with the theory. For example, Vold (1999) noted "when the term 'social responsibility' is used by the lay public, respondents usually add such values as truthful, fair, balanced, non-judgmental, and preserving 'good taste'" (p. 9). In addition, McQuail (2000) explained that under the social responsibility theory, "news media should be truthful, accurate, fair, objective and relevant" (p. 150). It is the definition and role of objectivity and bias in the press to which this review of literature will now turn.

Objectivity and Bias in the Press

The present study involves a specific content analysis methodology through which the objectivity level and level of balance of a group of sentences can be calculated. Therefore, a brief discussion of objectivity and bias in the press is warranted.

The concept of objective reporting has its roots in the libertarian theory of the press during the late nineteenth century (Fritz, et al., 2004; Lane, 2001; Mindich, 1998; Siebert, et al., 1963). "As the press moved from open partisanship toward professionalized news reporting, the principle that reporters should remain neutral about the subjects they covered became the norm" (Fritz, et al., 2004, pp. 36-37). Wang (2003) explained that "objectivity is the opposite of bias" (p. 4). As social responsibility theory evolved from libertarian theory, objectivity and lack of bias slowly emerged as a "definitive canon of American mainstream journalism" (Lane, 2001, p. 1).

But "lately 'objectivity' has come under fire, a casualty of a bitter battle over the future of journalism" (Mindich, 1998, p. 1). As Brooks, Kennedy, Moen, and Ranly (2005) observed, "American journalism is under threat from skepticism about how well today's journalists are fulfilling their historic roles" (p. 7), and much attention has been given to the appropriateness of objectivity as a standard in journalism. Even "American journalists disagree on what it is (a definition), how to measure it (a standard), and how to do it (a technique)" (Lane, 2001, p. 1). Lane (2001) concluded that most journalists act in one of four ways regarding objectivity: 1) rejection of the possibility of objectivity, (2) reconstruction and re-definition of objectivity, 3) creation of "recipes" for objectivity, or 4) boiling objectivity down to a set of mindless slogans.

However, despite pervasive debate about objectivity as a journalistic standard,

Mindich (1998) observed "'objectivity' is still considered a goal in journalism" (p. 3). For the present study, the researcher accepts McQuail's (2000) definition of objectivity:

> a theoretically contested term applied to news, although in 'common-sense' terms it sums up a number of the qualities that make for trust and reliability on the part of the news audience. These include factual accuracy, lack of bias, separation of fact from comment, transparency about sources, and not taking sides. The reasons for controversy about the term stem mainly from the view that true objectivity is unattainable and is misleading to pretend otherwise. In brief, all news is said to be ideological, and objectivity is held by critics to be another ideology. The requirements of objectivity make it possible for sources to manipulate the news and only serve to conceal 'bias,' whether this is intended or untended (p. 500).

Stevenson and Greene (1980) noted that most researchers use one of two definitions when conducting quantitative studies of news bias. The first defines bias as inaccuracy. The second and more commonly used definition of bias is "the systematic differential treatment of one candidate, one party, [or] one side of an issue over an extended period of time. Bias is the failure to treat all voices in the marketplace of ideas equally" (Stevenson & Greene, 1980, p. 116). McQuail's definition of (2000) bias combines these perspectives. He explained that bias is any tendency in news writing or journalistic writing "to deviate from an accurate, neutral, balanced and impartial representation of the 'reality' of events and social world according to stated criteria" (McQuail, 2000, p. 491).

Objectivity in Journalism Education

Like Wang (2003), the present researcher is aware "bias and objectivity have been

adopted in many journalism studies, and many different conceptual definitions have been given to these two terms" (p. 3).

McConnell (1995) compared the tenets of social responsibility theory of the press with the tenets espoused in journalism textbooks from 1891 to 1942. She analyzed 12 textbooks and several books written by press members during this period and found the books reflected "the shift in American culture from individualism to collectivism" (p. 1). McConnell explained that "by the 1940s, news writing textbooks were reflecting journalism educators' wholehearted embrace of social responsibility as a fundamental principle of journalism" (p. 25). As a tenet of the social responsibility theory, objectivity has been mentioned frequently in journalism texts. In fact, Lane (2001) collected 262 definitions of objectivity from "324 books on journalism theory, ethics, technique and practice published between 1911 and 1995" (p. 7).

However, the review of literature yielded no evidence of research about the effectiveness of methods to teach objectivity to students who are studying journalism and aspects of news writing, such as interviewing, reporting, writing, and editing. Although textbooks often *define* objectivity, they fail to address *how* journalists are to achieve it.

Theoretical Framework

Warmbrod (1986) recommends researchers include theoretical frameworks in research reports to help focus research design and analysis, as well as give "structure and meaning to the interpretation of findings" (p. 4). However, "the exact term 'theoretical framework' does not appear often or prominently in research methods texts" (Camp, 2001, ¶ 36). William G. Camp, a former president of the American Vocational Education Research Association, synthesized literature about the "relationship between theory and

research from the perspective of the researcher" (Camp, 2001, ¶ 1). By analyzing literature from both quantitative and qualitative perspectives, Camp (2001) defined theoretical framework as "a set of theoretical assumptions that explain the relationships among a set of phenomena" (¶ 39).

Similarly, Camp (2001) inferred "a symbiotic relationship between theory and research" (¶ 22). He posited "theory provides context without which the research could not be meaningful and research generates and tests theory without which the theory would not have meaning" (¶ 22) and theory is, therefore, both the starting and ending point in quantitative research (see Figure 3).

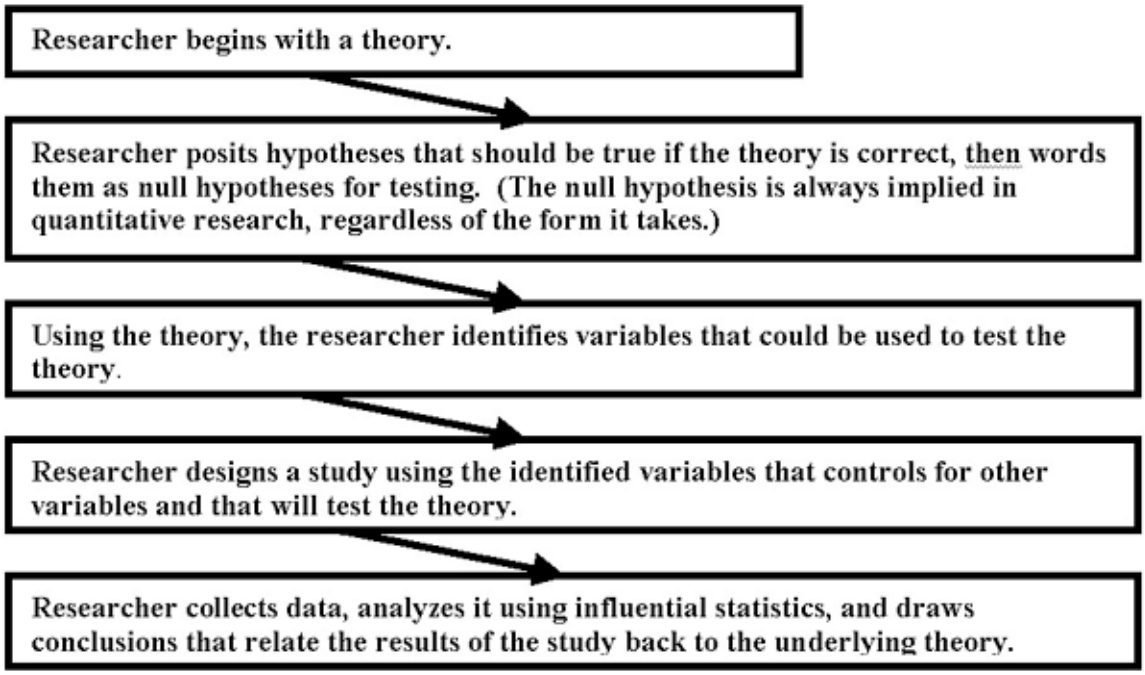


Figure 3. Graphic Illustration of the Role of Theory in Quantitative Research (Camp, 2001).

For the present study, the researcher began with the social responsibility theory of the press. As previously discussed, the theory posits "the media should accept and fulfill certain obligations to society. These obligations are mainly to be met by setting high or

professional standards of informativeness, truth, accuracy, objectivity, and balance" (McQuail, 1983, p. 91).

Vold (1999) examined newspapers to see if the social responsibility theory of the press was "part of the day-to-day decision-making function of newspersons in today's mass media" (p. iv). Vold's study "revealed that the theory is relevant in today's mass communication market" (p. iv) and found all the editors and reporters interviewed to have a basic knowledge of the social responsibility theory. Therefore, the social responsibility theory of the press is appropriate for this study.

Best and Kahn (1993) defined hypothesis as "a formal affirmative statement predicting a single research outcome, a tentative explanation of the relationships between two or more variables" (p. 11). For the present study, the researcher hypothesized if social responsibility is a valid theory of the press, then training that emphasizes the tenets of the theory will affect the objectivity level and use of judgment statements in agricultural communications students' news writing.

Following Camp's (2001) model, the researcher next identified variables to test the theory. In line with the social responsibility theory and its postulates, this study sought to determine if the objectivity level of agricultural communications students' news writing (dependent variable) changed after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias category training (independent variable).

The researcher chose content analysis and survey design to test the theory. The research findings are presented in Chapter IV, and the analysis and conclusions of the study are presented in Chapter V.

Content Analysis Methodology

Content analysis is an important method of research in mass communications. Bernard Berelson, a pioneer of content analysis as a method of media studies stated, "Since the content represents the means through which one person or group communicates with another, it is important for communication research that it be described with accuracy and interpreted with insight" (2000, p. 200). Content analysis is a scientific method often used to achieve this goal, and it is, therefore, an important method of research in mass communications.

Neuendorf (2002) defined content analysis "as the systematic, objective, quantitative analysis of message characteristics" (p. 1). Berelson's (1952) classic definition of content analysis states it is "a research technique for the objective, systematic, and quantitative description of manifest content of communications" (p. 18).

Berelson (1952) suggested five main purposes of content analysis: 1) to describe substance characteristics of message content; 2) to describe form characteristics of message content; 3) to make inferences to producers of content; 4) to make inferences to audiences of content; and 5) to predict the effects of content on audiences.

Neuendorf (2002) noted:

> the history of the use of the various techniques called content analysis has been documented only piecemeal, with some histories emphasizing text analysis; some, computer analysis; and others, specific applications, including communication and psychological diagnosis. (p. 30)

However, communication research precursors to content analysis can be traced back to the 17th century through inquisitorial pursuits by the church (Krippendorff, 2004).

These forerunners to content analysis as it is conducted today were mostly theological and hermeneutic inquiries, dissertations about newspaper content, graphological procedures, and even the dream analyses of Sigmund Freud (Krippendorff, 2004; Mayring, 2000).

Krippendorff (2004) explained that the "first well-documented quantitative analyses of printed matter" (p. 4) involved a collection of controversial Swedish hymns during the 18th century. The early 1900s saw an increase in both newsprint and demand for scientific, empirical inquiries about the press. Krippendorff (2004) went on to describe how this led to a crop of what was then called quantitative newspaper analyses, which "attempted to reveal "the truth about newspapers'" (p. 5). Eventually, the methodologies were extended to other mass media, including radio, movies, television, textbooks, comic strips, speeches, print advertising, and other forms of written, spoken, and broadcast communication.

"Media content analysis was introduced as a systematic method to study mass media by Harold Lasswell in 1927, initially to study propaganda" (Macnamara, 2006, p. 2).

"The term 'content analysis' first appeared in English in 1941" (Krippendorff, 2004, p. 3). By this time, the "'mass communication' tradition of investigating the media was part of the American social-scientific project" (Berelson, 2000, p. 195). Berelson (2000) stated research during this period was predominantly "scientific, functionalist and quantitative," (p. 195) and researchers' "main approach to the question of the media 'message' was 'content analysis,' which reflected these characteristics" (p. 195). During the 1940s, social and economic unrest, political changes, and "increasing public

acceptance of the theoretical propositions" (Krippendorff, 2004, p. 6) led to the "intellectual growth of content analysis" (p. 6).

During World War II, content analysis research surged, and the first large-scale applications of content analysis came when the "U.S. government commissioned propaganda analyses performed by Lasswell, Berelson, George, and other content analysis pioneers" (Roberts, 2001, p. 2697). These researchers used content analysis during the war to measure changes in troop concentration in Europe and interpret base activity by tabulating changes in message volume to and from Pacific naval bases (Wimmer & Domminick, 2006). After the war, content analysis methodologies were employed to verify the authorship of historical documents and study propaganda in newspapers and radio (Wimmer & Domminick, 2006). "In the 1950s, media content analysis proliferated as a research methodology in mass communication studies and social sciences with the arrival of television" (Macnamara, 2006, p. 2). During this period, content analysis gained prominence as a method of communications research, and Berelson (1952) published the first textbook about this method.

As a research technique, content analysis allows researchers to classify texts, images, and symbolic matter by coding content into quantifiable categories based on explicit rules of coding (Berelson, 1952; Krippendorff, 2004; Stemler, 2001). Mass communications researchers have used content analysis methodologies to achieve a variety of purposes, including "1) describing the content itself, 2) testing hypotheses, 3) documenting trends, 4) relating media content to the real world, and 5) assessing the messenger's motives" (Stone, Singletary, & Richmond, 1999, p. 332). Data generated by

content analysis may be combined with other data, which allows researchers to interpret how the content affects public opinion (Roberts, 2001).

Because content analysis can be used so many ways, it is not surprising it is a popular methodology in mass communication research. Several researchers have quantitatively documented the frequency of this methodology in mass communications journals. Neuendorf (2002) described content analysis as "the primary message-centered methodology" (p. 9). A study by Cooper, Potter, and Dupagne (1994) investigated the methods used in eight major communication journals from 1965 to 1989 and found 25% of all quantitative studies were content analyses. Similarly, a content analysis by Riffe and Freitag (1997) found "the 486 full-length articles using content analysis published during 1971-95 represented a fourth (24.6%) of the total 1,977 research articles published" (p. 517) in *Journalism & Mass Communication Quarterly*. Another study found content analysis was the most popular data collection method in "research articles published in 10 major mass communications journals during the 1980 to 1999 period" (Kamhawi & Weaver, 2003, p. 7).

In addition to mass communications, content analysis also is widely used in a variety of other social science disciplines, including sociology, psychology, linguistics, history, art, and business research (Mayring, 2000; Neuendorf, 2002). Both quantitative and qualitative approaches to content analysis have been developed (Mayring, 2000).

Hayakawa-Lowry Content Analysis Methodology

Some of the earliest content analysis studies were conducted to combat 'cheap yellow journalism' and assess bias in mass media content (Robson, 1993). A specific method of content analysis regarding bias and objectivity was developed by S.I.

Hayakawa (1940) and Lowry (1971). The Hayakawa-Lowry method was employed in the present study and has its roots in *Language in Thought and Action,* Hayakawa's (1940) landmark book about semantics. Hayakawa, who was a former U.S. Senator, professor and college president, said statements can be categorized into three categories: report, inference, and judgment.

"Report sentences are factual and verifiable statements" (Lowry, 1971, p. 574). "Reports adhere to the following rules: first, they are verifiable; second, they exclude, as far as possible, inferences, judgments, and the use of 'loaded' words" (S. I. Hayakawa & Hayakawa, 1990, p. 23).

"Inference sentences are subjective and not immediately verifiable" (Lowry, 1971, p. 574), "statements about the unknown based upon the known … where a writer draws an inference from some set of observable data" (S. I. Hayakawa & Hayakawa, 1990, p. 24).

Judgment sentences express the writer's opinions (Lowry, 1971) and "are expressions of the speaker's approval or disapproval of the occurrences, persons, or objects he is describing" (S. I. Hayakawa & Hayakawa, 1990, p. 25). A judgment evaluates previously observed facts and makes a conclusion about them (S. I. Hayakawa & Hayakawa, 1990).

However, Hayakawa and Hayakawa (1990) noted that it is sometimes impossible to deliver impartial reports. They noted that judgment statements are made obvious by the use of "snarl words" (S. I. Hayakawa & Hayakawa, 1990, p. 28) or "purr words" (p. 28). They also discussed "slanting," (S. I. Hayakawa & Hayakawa, 1990, p. 29) which is more subtle than the use of "snarl words" and "purr words." "Slanting give no explicit

judgments, but differs from reporting in that it deliberately makes certain judgments inescapable" (S. I. Hayakawa & Hayakawa, 1990, p. 30).

Lowry (1971) expanded and refined Hayakawa's trichotomy of sentence types to nine news bias categories, which he used in his analysis of the content of television news during the Richard Nixon presidency. This study (Lowry, 1971) created Hayakawa-Lowry news bias categories and established the Hayakawa-Lowry method of content analysis. The nine Hayakawa-Lowry news bias categories are:

1. Report sentence/attributed (RA);
2. Report sentence/unattributed (RU);
3. Inference sentence/labeled (IL);
4. Inference sentence/unlabeled (IU);
5. Judgment sentence/attributed/favorable (JAF);
6. Judgment sentence/attributed/unfavorable (JAU);
7. Judgment sentence/unattributed/favorable (JUF);
8. Judgment sentence/unattributed/unfavorable (JUU); and
9. All other sentences (O) (Lowry, 1985, p. 574).

Data generated by the Hayakawa-Lowry method have been used to achieve all the uses of content analysis described by Stone, et al. (1999), including describing content, testing hypotheses, documenting trends, relating media content to the real world, and assessing the messenger's motives (Bobbitt, Sitton, & Cartmell, 2007; Haygood, et al., 2002; J. King, et al., 2006; Lowry, 1971; Saunders, Akers, Haygood, & Lawver, 2003; Siebert, et al., 1963; Sitton, et al., 2004; Swafford, 2005; Terry, Dunsford, & Lacewell, 1996; Vinyard, Akers, Doerfert, Davis, & Oskam, 2005; Whitaker & Dyer, 2000). These

studies analyzed transcripts of television news broadcasts, textbooks, and news and feature stories both in print and on the World Wide Web. In addition, with the exception of Lowry's initial studies, all of the studies cited here used the Hayakawa-Lowry method in some agricultural context.

Terry, el al. (1996), Whitaker and Dyer (2000), Sitton , et al. (2004), J. King, et al. (2006), and Vinyard, et al. (2005) analyzed periodical content using the Hayakawa-Lowry methodology. Specifically, Terry, et al. (1996) analyzed national news periodicals and found a lack of agricultural reporting. Whitaker and Dyer (2000) evaluated environment and food safety articles from the three agricultural publications with the largest circulations and the three news periodicals with the largest circulation. Sitton, et al. (2004) analyzed 40 news stories in Oklahoma's two largest newspapers concerning swine concentrated animal feeding operations. J. King, et al. (2006) studied daily newspaper coverage of the United States' outbreak of Bovine Spongiform Encephalopathy. Vinyard, et al. (2005) examined the coverage of cotton from 534 Texas newspapers. The effective use of the Hayakawa-Lowry methodology in these studies to determine the objectivity level of periodical content demonstrates the viability and appropriateness of this methodology.

Swafford (2005) utilized the Hayakawa-Lowry news bias categories to "assess the degree of bias toward agriculture within a middle grade science textbook" (p. viii). He found "the textbook [wa]s generally unbiased in its portrayal of agricultural concepts" (p. ix).

Hess (1997), Hagins (2001), Haygood, et al. (2002), and Bobbitt, et al. (2007) used the Hayakawa-Lowry method to analyze Associated Press news wire coverage of agricultural issues.

Saunders, et al. (2003) evaluated one calendar month of content about agricultural issues on popular agricultural websites. The researchers found agricultural reporters used personal opinions when writing about agriculture, and they attributed judgment statements to sources 78 percent of the time (Saunders, et al., 2003).

While studies by Sitton, et al. (2004) and J. King, et al. (2006) concluded when judgment statements were used, they were generally more judgmental toward agriculture, Saunders, et al. (2003), Vinyard, et al. (2005), and Bobbitt, et al. (2007) found when judgment statements were used, they were generally more favorable toward agriculture.

Survey Methodology

A survey "is a system for collecting data from a population or sample at one point in time where it is assumed that there is heterogeneity in personal characteristics, attitudes, knowledge, and behaviors across the population" (Bourque & Fielder, 1995, p. 246).

Bourque and Fielder (1995) noted that surveys "collect data in one or more of five areas: 1) personal information about respondents, 2) information about respondents' environments, 3) information about respondents' behavior, 4) information about respondents' experience or status, and 5) information about respondents' thoughts or feelings" (p. 27).

The first recorded use of surveys dates back to rudimentary forms of the census conducted by ancient Egyptians (Babbie, 1990). In 1817, "Marc Antoine Jullien de Paris

designed a 34-page international survey of national education systems" (Creswell, 2005, p. 354).

The modern survey emerged during the 1920s and 1930s and gained widespread acceptance as a research methodology during the 1950s (Babbie, 1990; Church & Waclawski, 1998; Creswell, 2005). It was during this time that the efforts of Samuel Stouffer and Lazarsfeld's work helped increase the "acceptance, popularity and, above all, quality of surveys today" (Church & Waclawski, 1998, p. 6). During the mid-nineteenth century, "scales improved through the development of the Likert scale. Also, guidelines were written for writing clear questions, standardizing interviewing questions, training interviewers, and checking for consistency among interviewers" (Creswell, 2005, p. 354).

Today, researchers make use of telephones, websites, and e-mail in electronic surveys (Creswell, 2005). "Electronic surveys and communications will probably revolutionize the use and application of survey research in the future" (Creswell, 2005, p. 355).

"Although many different forms of surveys exist, survey researchers typically collect data using two basic forms: questionnaires and interviews" (Creswell, 2005, p. 360). Questionnaires are forms completed by participants and collected by researchers (Creswell, 2005). "Self-administered questionnaires are one of the most frequently used methods for collecting data in research studies" (Bourque & Fielder, 1995, p. 1). Bourque and Fielder (1995) discussed two main types of self-administered surveys: supervised and unsupervised. They explained supervised questionnaires include one-to-one supervision, group administration, and semi-supervised administration. Unsupervised questionnaires

include any survey not completed in the presence of surveyor (Bourque & Fielder, 1995). "Questionnaires sent through the mail provide the most common example of unsupervised administration" (Bourque & Fielder, 1995, p. 3)

"No statistics are available regarding the number of self-administered questionnaires that are used in research projects or how they distribute between supervised and unsupervised administration" (Bourque & Fielder, 1995, p. 7).

Survey Design

For the present study, a group self-administered, researcher-designed questionnaire was employed.

Bourque and Fielder (1995) explained that in

> group administration, each person is expected to complete the questionnaire without consulting other persons in the group, but the surveyor or another supervisory person is available to provide introductory instructions, answer questions, and monitor the extent to which questionnaires are completed and individual respondents communicate with each other during the period of administration. (p. 4)

Creswell (2005) provided guidelines for designing survey instruments. He said researchers should first consider using an existing survey in whole or in part, and if these approaches do not work, researchers should design their own instrument. Researchers should 1) write different types of questions, 2) use strategies for good question construction, and 3) perform a pilot test of the questions (Creswell, 2005). According to Creswell (2005), strategies for good question construction include "using clear language, making sure the answer options do not overlap, and posing questions that are applicable

to all participants" (p. 362). Survey instruments may include both open- and closed-ended questions (Creswell, 2005). Closed-ended questions allow the "researcher to conveniently compare responses" (Creswell, 2005, p. 363) and also "provide a means for coding responses or assigning a numeric value and statistically analyzing the data" (Creswell, 2005, p. 364). Alternatively, open-ended questions are "ideal when the researcher does not know the response possibilities and wants to explore the options. Furthermore, open-ended questions allow participants to create responses within their cultural and social experiences instead of the researcher's experiences" (Creswell, 2005, p. 364).

Chapter Summary

The chapter identified, outlined, and discussed literature related to objectivity and bias in the media, objectivity in journalism education, the history of content analysis methodology, the Hayakawa-Lowry content analysis methodology, and survey methodology and design. Normative theories of the press, specifically the social responsibility theory of the press, which will serve as the theoretical framework for this study, also were described in this chapter.

CHAPTER III

METHODOLOGY

Chapter Overview

Chapter I provided an introduction to the study, and Chapter II included an overview of theory, specifically focusing on the social responsibility theory of the press. Chapter II also included the theoretical framework for this study and identified, outlined, and discussed literature related to theory, normative theories of the press, the social responsibility theory of the press, objectivity and bias in the media, objectivity in journalism education, the history of content analysis methodology, the Hayakawa-Lowry content analysis methodology, and survey methodology and design. Chapter III describes the research design, variables, population and sampling procedures, instrumentation, validity and reliability issues, and data collection and analysis procedures.

Purpose of the Study

The purpose of this study was to determine if and/or how the objectivity level and use of judgment statements in agricultural communications students' news writing are affected after those students attend a lecture and receive a handout about the Hayakawa-Lowry news bias categories.

Research Questions

The study addressed the following research questions:

1. What is the objectivity level of agricultural communications students' news writing before and after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?

2. How do agricultural communications students use judgment statements in their news writing before and after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
3. Does the objectivity level of agricultural communications students' news writing change after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
4. Does agricultural communications students' use of judgment statements in their news writing change after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
5. How do agricultural communications students perceive the objectivity level of their news writing before and six months after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
6. Do agricultural communications students' perceptions of the objectivity level of their news writing match the objectivity level of their writing as measured by the Hayakawa-Lowry methodology?
7. How do agricultural communications students perceive their use of judgment statements in their news writing before and six months after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
1. Do agricultural communications students' perceptions of their use of judgment statements in their news writing match their use of judgment statements as measured by the Hayakawa-Lowry methodology?

Institutional Review Board

Oklahoma State University policy and federal regulations call for the review and approval of studies involving human subjects. The Oklahoma State University Office of University Research Services and the Institutional Review Board (IRB) conduct the review process to protect the welfare and rights of human subjects involved in biomedical and/or behavioral research. This study received proper review by the IRB and was granted permission to proceed. The IRB application number for this study was AG0748. A copy of the approval form is presented in Appendix A.

Research Design

This study employed content analysis methodology and a survey instrument to answer the research questions presented above.

Variables

Independent Variable: Hayakawa-Lowry News Bias Category Training

Lowry (1971) created Hayakawa-Lowry news bias categories and established the Hayakawa-Lowry method of content analysis. For this study, participants attended a lecture and received a handout about the Hayakawa-Lowry news bias categories. The lecture slides (see Appendix B) and handout (see Appendix C) included definitions for the categories and examples of sentences for each category, as well as rules and tips for identifying sentences in each category.

Dependent Variable: Objectivity Level

The objectivity level of a story is a mean score used to designate the level of objectivity of a group of sentences using the Hayakawa-Lowry methodology (Sitton, et al., 2004). The Hayakawa-Lowry methodology measures the objectivity level by coding

sentences as report, inference, or judgment statements. The reports, inferences, and judgments are then given a score of 1, 2, or 3, respectively, and a mean is calculated to determine the objectivity level. When considering the objectivity level for a group of sentences, a lower mean signifies more objective or less judgmental writing (J. King, et al., 2006; Sitton, et al., 2004). On the contrary, a higher mean represents less objective or more judgmental writing. For this study, a group of sentences with an objectivity level of 1.00 to 1.99 was labeled "more objective than judgmental," a group of sentences with an objectivity level of 2.00 was labeled "equally objective and judgmental," and a group of sentences with an objectivity level of 2.01 to 3.00 was labeled "more judgmental than objective."

Subject Selection

Population

The population for this study consisted of agricultural communications students enrolled in AGCM 3113: Writing for Agricultural Publications during the spring 2008 semester at Oklahoma State University. The students were asked to participate in the study based on their enrollment in the course. Participation was voluntary and in no way affected students' grades or ability to participate in the course. The entire class enrollment had the opportunity to participate in the study. The researcher was not an instructor for the course.

The intact AGCM 3113 class was used as the population for this study because the course focuses on "interviewing, reporting, writing, and editing for agricultural publications" (Oklahoma State University Office of the Registrar, 2008, p. 230). Since the Hayakawa-Lowry news bias categories can be used to determine the objectivity level

of news writing, the course provided an ideal arena to answer the research questions presented in this study.

Sampling Procedure

The study was designed to collect census data from the population. Creswell (2005) noted "random sampling, hypothesis testing, and the use of inferential statistics are not necessary" (p. 359) for census studies. In addition, this type of study "permits conclusions to be drawn about the entire population" (p. 359).

Instrumentation

Instrument Selection and Development Procedures

Content analysis was used for this study because, as noted in Chapter I, it is an efficient means of describing media content (Stone, et al., 1999, p. 332). The Hayakawa-Lowry method (Lowry, 1971) of content analysis was employed in this study because it has been demonstrated to be a reliable and valid method of describing the objectivity level of news stories (Lowry, 1985). The researcher also designed a survey instrument to determine if students' perceptions of the objectivity level and use of judgment statements in their writing matched the objectivity level and the use of judgment statements in their writing as measured by the Hayakawa-Lowry methodology.

The survey instrument for this study was designed and implemented using Creswell's (2005) suggestions for designing survey instruments and Bourque and Fielder's (1995) suggestions for conducting group self-administered surveys.

A group self-administered survey was appropriate for this study because this type of questionnaire 1) allows for consistency in instruction to respondents, 2) can be simultaneously administered to all respondents, 3) allows the administrator to answer

questions, and 4) allows the administrator to monitor communication among respondents (Bourque & Fielder, 1995).

Creswell (2005) suggested when designing survey instruments, researchers should 1) write different types of questions, 2) use strategies for good question construction, and 3) perform a pilot test of the questions. According to Creswell (2005), strategies for good question construction include "using clear language, making sure the answer options do not overlap, and posing questions that are applicable to all participants" (p. 362). In addition, Creswell (2005) explained that group self-administered questionnaires increase response rate and thereby reduce response bias.

Validity and Reliability

When collecting quantitative data, researchers should strive to select instruments that reliably and validly report scores (Creswell, 2002). Validity and reliability of scores "lead to meaningful interpretations of data" (Creswell, 2002, p. 153). "Validity is the degree to which a measure or a research design accurately operationalizes the concept it is intended to measure. Validity is analogous to the accuracy with which a dart thrower hits the bullseye" (Williams, Rice, & Rogers, 1988, p. 58). "Reliability is the degree to which a measure operationalizes a concept consistently over time and contexts. Reliability is analogous to the precision or consistency with which a dart thrower hits the same point on the target time after time" (Williams, et al., 1988, p. 61). It is important to note that while reliability supports validity, and validity is not possible without reliability, both must be present in quantitative research designs (Creswell, 2002; Lombard, Snyder-Duch, & Bracken, 2002; Williams, et al., 1988).

Validity of Hayakawa-Lowry Content Analysis Methodology

Lowry (1985) established the construct validity of the Hayakawa-Lowry news bias categories by using a two-part study in which he compared the coding decisions of trained and untrained coders. Lowry also concluded the Hayakawa-Lowry news categories make distinctions that are perceived by untrained consumers of news and affect perceptions of news objectivity. He found:

> Hayakawa's distinctions between reports, inferences and judgments are indeed perceived by untrained audience members and actually do affect their perceptions of news objectivity and that the differences measured by these categories when used by researchers in content analysis studies are differences that do indeed make a meaningful difference to consumers. (p. 759)

Lowry (1985) also concluded "in addition to statistically demonstrating the construct validity of the Hayakawa-Lowry categories, this report presents data … which seem to provide considerable support for the face validity of the categories" (p. 580).

Reliability of Hayakawa-Lowry Content Analysis Methodology

Lowry developed and tested a rater manual to establish intercoder reliability for the Hayakawa-Lowry content analysis methodology (Terry, et al., 1996). "The category system and methods used in … three Lowry studies have produced high intercoder and intracoder reliability scores ranging from .78 to .94" (Lowry, 1985, p. 574). In this study, three coders were trained to use a coding manual based on Lowry's original coding manual. The coding manual included instructions specific to the current study is presented in Appendix C.

Intercoder reliability for this study was assessed using the guidelines presented by Lombard, et al. (2002). "Intercoder reliability is the widely used term for the extent to which independent coders evaluate a characteristic of a message or artifact and reach the same conclusion" (Lombard, et al., 2002, p. 589). Lombard, et al. (2002) also noted although 'intercoder reliability' is an appropriate term, 'intercoder agreement' is a more specific term for content analysis research. As Tinsley and Weiss (2000) noted, 'intercoder reliability' often indicates the extent to which ratings of coders are the same "when expressed as deviations from their means" (p. 98) while 'intercoder agreement' indicates the extent to which coders assign the same rating to each object. In the present study, the term 'intercoder reliability' will be used. Intercoder reliability is a critical component of content analysis, and without it, the "data and interpretations of the data can never be considered valid" (Lombard, et al., 2002, p. 589). Figure 4 outlines the 10 guidelines presented by Lombard, et al. to assess reliability in content analysis studies.

1. Calculate and report intercoder reliability.
2. Select one or more appropriate indices.
3. Obtain the necessary tools to calculate the index or indices selected
4. Select an appropriate minimum acceptable level of reliability for the index or indices to be used.
5. Assess reliability informally during coder training.
6. Assess reliability formally in a pilot test.
7. Assess reliability formally during coding of the full sample [or census].
8. Select and follow an appropriate procedure for incorporating the coding of the reliability sample into the coding of the full [census].
9. Do not do any of the following: • Use only percent agreement to calculate reliability. • Use Cronbach's alpha, Pearson's *r*, or other correlation-based indices that standardize coder values and only measure covariation. • Use chi-square to calculate reliability. • Use overall reliability across variables (rather than reliability levels for each variable) as a standard for evaluating the reliability of the instrument. • Use overlapping reliability coding, in which judges code overlapping sets of units.
10. Report intercoder reliability in a careful, clear, and detailed manner in all research reports.

Figure 4. Guidelines to Assess Intercoder Reliability in Content Analysis (Lombard, et al., 2002).

The first step outlined by Lombard, et al. (2002) is to calculate and report intercoder reliability. The next step is to select one or more appropriate indices (Lombard, et al., 2002). "Despite all the effort that scholars, methodologists, and statisticians have devoted to developing and testing indices of intercoder reliability, there is no consensus on a single, 'best' index" (Lombard, et al., 2002, p. 593). Because the content analysis methodology used in this study assigns units to nominal categories, the researcher considered using Cohen's kappa (1960, 1968), which is designed for nominal scales and does take into account agreement by chance. J.E. King (2004) wrote:

> Cohen's kappa has long been used to quantify the level of agreement between two raters in placing persons, items, or other elements into two or more categories. Fleiss extended the measure to include multiple raters, denoting it the generalized kappa statistic. (p. 3)

Therefore, the researcher chose to use Fleiss' kappa (1971), which can assess reliability for any number of coders assigning nominal categories and takes into account agreement by chance. Because of the rigor of generalized kappa calculations, only one index was used in this study.

Lombard, et al. (2002) next suggested researchers obtain tools to calculate reliability for the study. J.E. King (2004) describes how to calculate Fleiss' kappa via software packages. He developed "an online, freely-available Microsoft® Excel® spreadsheet that estimates the generalized kappa statistic, its standard error (via two options), statistical tests, and associated confidence intervals" (p. 4). The researcher

downloaded the spreadsheet from Jason King's homepage (2008) and used this spreadsheet to calculate Fleiss' kappa for the present study. King "developed a Microsoft© Excel spreadsheet that calculates the generalized kappa, kappa values for each rating category … test statistics, associated probability values, and confidence intervals" (2004, p. 4). To the researcher's knowledge, this is the only freely available spreadsheet of this kind.

The fourth step to assessing intercoder reliability is to select a minimum level of reliability that is acceptable for the study (Lombard, et al., 2002). Neuendorf (2002) states "coefficients of .90 or greater would be acceptable to all, .80 or greater would be acceptable in most situations and, and below that, there exists great disagreement" (p. 143). Lombard, et al. (2002) pointed out "more liberal criteria are usually used for the indices known to be more conservative (i.e., Cohen's kappa and Scott's pi)" (p. 600). Since Fleiss' kappa (1971), employed in this study, is an extension of Cohen's kappa (1960, 1968), it follows Fleiss' kappa also can be considered a more conservative index, as described above. The researcher, therefore, selected a coefficient of .75 as a minimum acceptable level of intercoder reliability for this study.

The next guideline suggests researchers assess reliability informally during coder training (Lombard, et al., 2002). For this study, three assistants were trained to place sentences into one and only of the Hayakawa-Lowry news bias categories. Specifically, the coders participated in two hours of training to learn to use a coding manual based on Lowry's (1971) manual and to use the codes accurately and consistently. As suggested by Lombard, et al. (2002), during coder training, the assistants coded 22 sentences, which were similar in structure, but unrelated, to the sentences to be coded in the study. Fleiss'

kappa (1971) was calculated as .512. The approximate standard error based on Fleiss (1971) was .093, and the approximate standard error based on Fleiss, et al. (1979) was .074. The coders then underwent additional training to increase the reliability coefficient to "an adequate level of agreement" (Lombard, et al., 2002, p. 600).

Next, the researcher should conduct a pilot test and formally assess reliability (Lombard, et al., 2002). As suggested by Lombard, et al. (2002), 1) a pilot test was conducted for the study, 2) the sentences in coded in the pilot study were similar in structure, but unrelated, to the sentences to be coded in the study, 3) the pilot test coding was "done independently and without consultation or guidance" (p. 601), and 4) the researcher was not a coder. The pilot test included 68 sentences. Fleiss' kappa (1971) was calculated as .758. The approximate standard error based on Fleiss (1971) was .058, and the approximate standard error based on Fleiss, et al. (1979) was .045. This reliability level was deemed adequate, and the coders proceeded to the full census.

The seventh step outlined by Lombard, et al. (2002) is to code the full sample or census and formally assess reliability. For this study, a sample of 85 sentences (10% of the census) was randomly selected to assess reliability for the full census. "As with the pilot test, this coding [was] done independently, without consultation or guidance" (Lombard, et al., 2002, p. 601). Fleiss' kappa (1971) was calculated as .772. The approximate standard error based on Fleiss (1971) was .042, and the approximate standard error based on Fleiss, et al. (1979) was .049.

Next, the researcher should incorporate the coding of the reliability sample and full sample or census (Lombard, et al., 2002). Lombard, et al. (2002) noted:

> Although an adequate level of intercoder agreement suggests that the decisions of each of the coders could reasonably be included in the final data, and although it can only address the subset of potential coder disagreements that are discovered in the process of assessing reliability, the researcher must decide how to handle these coding disagreements. (p. 601)

Although the researcher did not code the articles to prevent researcher bias during coding, the researcher did serve as tie-breaker to resolve coding disagreements in the study.

To adhere to the ninth guideline of Lombard, et al. (2002), the researcher did not do any of the things Lombard, et al. proscribed.

In addition, the researcher adhered to the tenth and final guideline for assessing intercoder reliability by carefully and clearly detailing and reporting intercoder reliability.

Validity of Survey Instrument

The survey was reviewed by a panel of experts to establish face and content validity. The panel consisted of three Oklahoma State University agricultural communications faculty members (see Appendix E). These experts were chosen because they are knowledgeable about both the desired content and the study participants. The instrument was modified based on suggestions from the panel. Upon second review, the panel found the instrument to be valid.

Reliability of Survey Instrument

A pilot tested was conducted to establish reliability for the survey instrument. The population for the pilot test consisted of 12 agricultural communications students enrolled

in AGCM 3113: Writing for Agricultural Publications during the fall 2007 semester at Oklahoma State University. The pilot survey included six open-ended questions and two closed-ended, scaled-response questions. Three of the questions were distractor questions unrelated to the study. The two closed-ended questions were scaled-response items scored as continuous variables. Creswell (2005) noted "if the items are scored as continuous variables, alpha provides a coefficient to estimate consistency of scores on an instrument" (Creswell, 2005, p. 164). Therefore, Cronbach's alpha (1951) was calculated to assess the internal consistency of scaled items on the survey. Cronbach's alpha was calculated as .762. In general, a Cronbach's alpha of .70 or greater is regarded as an acceptable level of internal consistency (Nunnally, 1978). An analysis of the answers to the open-ended question revealed the instrument adequately measured the desired information and no changes were necessary.

Data collection and analysis

Content analysis

The content analysis section of this study was conducted using the Hayakawa-Lowry methodology (Lowry, 1985). The content analyzed consisted of two sets of student news writing assignments collected from study participants throughout a 16-week course titled "Writing for Agricultural Publications." The course focused on "interviewing, reporting, writing, and editing for agricultural publications" and required students to complete four "Major Assignments" that supplemented and reinforced the topics addressed by the class syllabus (see Appendix F). Major Assignments 2, 3, and 4 required students to write news stories.

For this study, Major Assignments 2 and 4 were collected and analyzed. The

instructions for these news writing assignments are presented in Appendices G and H. In this study, Major Assignment 2 was grouped into "Set 1" and Major Assignment 4 was grouped into "Set 2."

Set 1 was written no later than week 8 of the course, and the Set 2 was written no later than week 15 of the course. Set 2 was written after the students attended a lecture and received a handout about the Hayakawa-Lowry news bias categories.

All sentences in the two story sets were coded by three assistants trained to use a coding manual and to use the codes accurately and consistently. A discussion of coder training is included earlier in this chapter. The coding manual used in this study is included in Appendix C. The coders placed each sentence into one, and only one, of the Hayakawa-Lowry news bias categories, which are:

1. Report sentence/attributed (RA);
2. Report sentence/unattributed (RU);
3. Inference sentence/labeled (IL);
4. Inference sentence/unlabeled (IU);
5. Judgment sentence/attributed/favorable (JAF);
6. Judgment sentence/attributed/unfavorable (JAU);
7. Judgment sentence/unattributed/favorable (JUF);
8. Judgment sentence/unattributed/unfavorable (JUU); and
9. All other sentences (O) (Lowry, 1985, p. 574).

To determine if a judgment statement was favorable or unfavorable, coders determined the topic for each story and coded each judgment statement accordingly.

The nine Hayakawa-Lowry news bias categories take into account source attribution and reporter bias (Haygood, et al., 2002; Lowry, 1985) (see Figure 5). Attribution can take the form of a direct quote or an indirect quote and can be to a specific source or a general source (Lowry, 1971, p. 207).

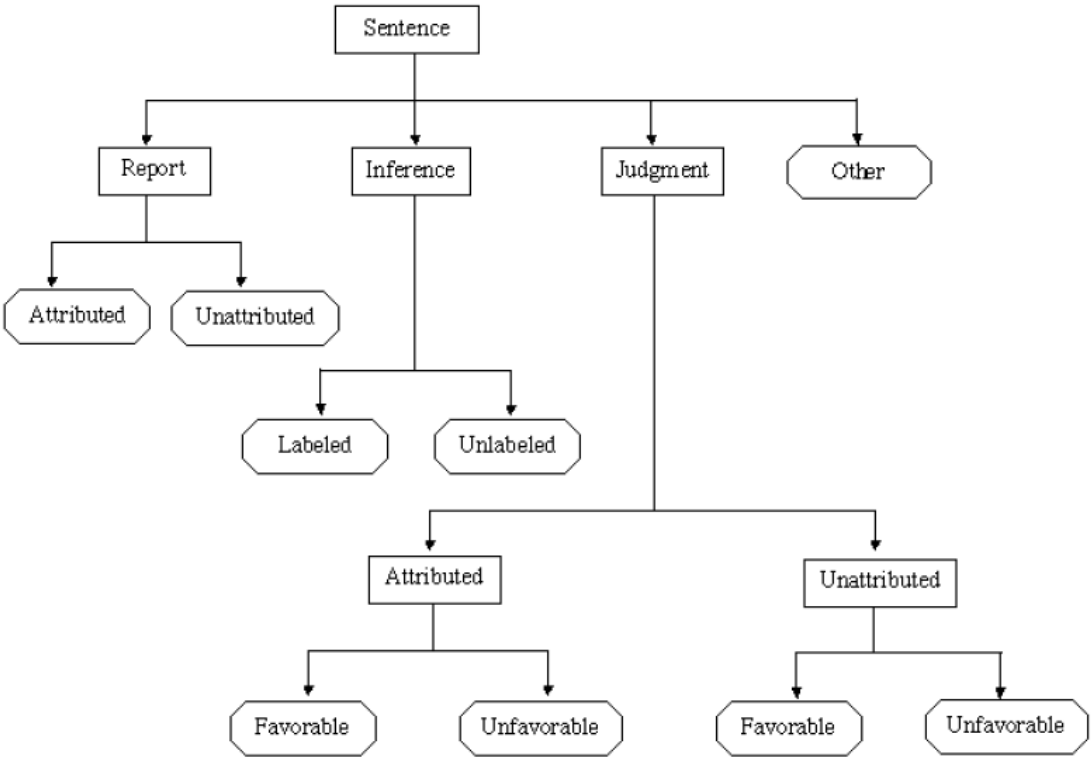


Figure 5. Hayakawa-Lowry News Bias Categories Analysis Model (Haygood, et al., 2002)

To determine the objectivity level of each news writing assignment, all sentences were recoded to correspond to Hayakawa's trichotomy of sentence types: reports, inferences, and judgments. The sentences initially coded as "report sentence/attributed" or as "report sentence/unattributed" were coded as "report" and given a value of 1. Sentences originally coded as "inference sentence/labeled" or as "inference sentence/unlabeled" were coded as "inference" and given a value of 2. Finally, sentences

that receive the codes of "judgment sentence/attributed/favorable," "judgment sentence/attributed/unfavorable," "judgment sentence/unattributed/favorable," or "judgment sentence/unattributed/unfavorable" were coded as "judgment" and given a value of 3.

As Sitton, et al. (2004) pointed out, the sentences initially coded as "other" were not included in this portion of the study because "other" sentences were not included in Hayakawa's original categories, and therefore, those sentences would be considered neutral.

As in studies by Sitton, et al. (2004) and J. King, et al. (2006), the continuum of numbers were used because report statements are generally perceived as more objective than inference or judgment statements, and inference statements are generally perceived as more objective than judgment statements (Lowry, 1985). Lowry (1985) also found that "negative judgments are sometimes perceived as more biased than are positive judgments" (p. 579). The numerical codes were used to calculate a mean objectivity level for each story and each student, as well as an overall objectivity level for all of the stories in the two story sets. Descriptive statistics were calculated using Microsoft® Office Excel® 2007.

Survey instrument

Survey 1

Survey 1 (see Appendix I) was administered in January 2008 in accordance with Bourque and Fielder's (1995) suggestions for conducting group self-administered surveys. The researcher made an in-person request for student participation. The researcher then used a "scripted set of instructions to introduce the questionnaire"

(Bourque & Fielder, 1995, p. 5) and to inform students of their rights as study participants (see Appendix J). The script also "included a statement to the effect that there are no right or wrong answers to the questions" (Bourque & Fielder, 1995, p. 5). An Informed Consent document (see Appendix K) and Survey 1 were distributed to the students.

Survey 1 included 8 questions. Questions 1, 2, and 3, 4, 5 and 8 were open-ended distractor questions unrelated to the study.

Question 6 was a closed-ended, scaled-response item to determine if students perceive their writing as "more objective than judgmental," "equally objective and judgmental," or "more judgmental than objective." These responses correspond to the interpretation of the mean objectivity level calculated by the coding of sentences into Hayakawa's original trichotomy of sentences. These perceptions, therefore, could be compared with the objectivity level for each of the assignments analyzed in the study. In addition, respondents' perceptions of the objectivity level of their writing from Survey 1 and Survey 2 also could be compared.

Question 7 was a closed-ended, scaled response item to determine how students perceive their use of judgment statements. Participants were asked to indicate if, when they use judgment statements, "more of the judgment statements are favorable toward the topic," "there are an equal amount of judgment statements favorable and unfavorable toward the topic," or "more of the judgment statements are unfavorable toward the topic." These perceptions, therefore, could be compared with students' use of judgment statements for each of the assignments analyzed in the study. In addition, respondents'

perceptions of their use of judgment statements from Survey 1 and Survey 2 also could be compared.

Descriptive statistics for Survey 1 were calculated using Microsoft® Office Excel® 2007.

Survey 2

Survey 2 (see Appendix L) was administered in October 2008, sixth months after the population completed AGCM 3113: Writing for Agricultural Publications. This survey also was administered in accordance with Bourque and Fielder's (1995) suggestions for conducting group self-administered surveys.

Similar to the administration of Survey 1, an administrator used a "scripted set of instructions to introduce the questionnaire" (Bourque & Fielder, 1995, p. 5) and to again inform students of their rights as study participants (see Appendix M). The script also "included a statement to the effect that there are no right or wrong answers to the questions" (Bourque & Fielder, 1995, p. 5). Survey 2 then was distributed to participants.

Survey 2 included eight questions, which were identical to the questions in Survey 1.

Descriptive statistics for Survey 2 were calculated using Microsoft® Office Excel® 2007.

Chapter Summary

This chapter described the research design, variables, population and sampling procedures, instrumentation, validity and reliability issues, and data collection and

analysis procedures. The population for this study consisted of agricultural communications students enrolled in AGCM 3113: Writing for Agricultural Publications during the spring 2008 semester at Oklahoma State University. The study was designed to collect census data from the population; thus, no sampling was required. The study used the Hayakawa-Lowry content analysis methodology and a researcher-designed, group self-administered survey instrument. Chapter III also addressed validity and reliability issues associated with the Hayakawa-Lowry content analysis methodology (Lowry, 1985) and a researcher-designed survey instrument, as well as the data collection and analysis procedures employed to answer the eight research questions presented in the study.

CHAPTER IV

FINDINGS

Chapter Overview

Chapter I provided an introduction to the study, and Chapter II identified, outlined, and discussed literature related to objectivity and bias in the media, objectivity in journalism education, the history of content analysis methodology, the Hayakawa-Lowry content analysis methodology, and survey methodology and design. Normative theories of the press, specifically the social responsibility theory of the press, which serves as the theoretical framework for this study, also were described in this chapter.

Chapter III described the research design, variables, population and sampling procedures, instrumentation, validity and reliability issues, and data collection and analysis procedures. Chapter III also addressed validity and reliability issues associated with the Hayakawa-Lowry content analysis methodology (Lowry, 1985) and a researcher-designed survey instrument, as well as the data collection and analysis procedures employed to answer the eight research questions presented in the study.

The purpose of Chapter IV is to present the findings for each research question of

Purpose of the Study

The purpose of this study was to determine if and/or how the objectivity level and use of judgment statements in agricultural communications students' news writing are affected after those students attend a lecture and receive a handout about the Hayakawa-Lowry news bias categories.

Research Questions

The study addressed the following research questions:

1. What is the objectivity level of agricultural communications students' news writing before and after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
2. How do agricultural communications students use judgment statements in their news writing before and after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
3. Does the objectivity level of agricultural communications students' news writing change after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
4. Does agricultural communications students' use of judgment statements in their news writing change after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
5. How do agricultural communications students perceive the objectivity level of their news writing before and six months after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
6. Do agricultural communications students' perceptions of the objectivity level of their news writing match the objectivity level of their writing as measured by the Hayakawa-Lowry methodology?
7. How do agricultural communications students perceive their use of judgment statements in their news writing before and six months after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?

8. Do agricultural communications students' perceptions of their use of judgment statements in their news writing match their use of judgment statements as measured by the Hayakawa-Lowry methodology?

Procedures

This study employed the Hayakawa-Lowry content analysis methodology (Lowry, 1985) and a researcher-designed survey instrument to answer the eight research questions presented in the study. The population for this study consisted of agricultural communications students enrolled in AGCM 3113: Writing for Agricultural Publications during the spring 2008 semester at Oklahoma State University ($N = 17$). The study was designed to collect census data from the population; thus, no sampling was required. Ten students chose to participate in the study. Therefore, the target population was $N = 10$.

Demographics

Demographic information for participants was collected using the Oklahoma State University Student Information System. The information collected included age, gender, ethnicity, major, and academic classification, and has been summarized and reported to provide a profile of the population.

Age : Ten students participated in the study. Their mean age was 20.5 years, with a range of 19 to 23 years.

Gender: Students participating in this study were 90.0% ($n = 9$) female and 10.0% ($n = 1$) male.

Ethnicity: The ethnicity of students participating in this study was 100.0% ($n = 10$) "White."

Major: Seventy percent (n = 7) of the students participating in this study were pursuing a bachelor's degree in Agricultural Communications, 10% (n = 1) of the students were pursuing a bachelor's degree in Agricultural Communications/Animal Science, 10% (n = 1) were pursuing a bachelor's degree in both Agricultural Communications and Animal Science, and 10% (n = 1) of the students were pursuing a master's degree in Agricultural Communications.

Academic classification: Students participating in this study had a possible academic classification of freshman, sophomore, junior, senior, or graduate student when the course began. Fifty percent (n = 5) were classified as a junior, 40% (n = 4) were classified as a sophomore, and 10% (n = 1) were classified as a graduate student when the course began.

GPA: The overall grade point average for students participating in this study was reported on a 4.0 scale. The students' mean grade point average was 3.335, with a range of 2.088 to 4.0.

ACT Composite Score: Unless waived by university administration, ACT standardized test scores are required for undergraduate students enrolled at Oklahoma State University. Graduate students are not required to take or report ACT test scores. The ACT composite scores had a possible range from 1 to 36, from low to high, respectively. The mean ACT composite score for undergraduate students participating in the study was 22.56, with a range of 17 to 33.

ACT English Score: The ACT English scores had a possible range from 1 to 36, from low to high, respectively. The mean ACT English score for undergraduate students participating in the study was 24, with a range of 15 to 35.

Findings

Findings Related to Research Question 1

Research question 1 sought to determine the objectivity level of agricultural communications students' news writing before and after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories.

Ten students participated in the study, and each student wrote two news writing assignments (n=20). Each student was randomly assigned a code letter from A to J and each assignment was randomly assigned a code number from 1 to 20 for confidentiality purposes.

Set 1, which was written before the Hayakawa-Lowry news bias training, included assignments 2, 3, 8, 11, 13, 14, 16, 17, 18, and 19. Set 2, which was written after the Hayakawa-Lowry news bias training, included assignments 1, 4, 5, 6, 7, 9, 10, 12, 15, and 20. Student A wrote assignments 13 and 15. Student B wrote assignments 17 and 7. Student C wrote assignments 19 and 10. Student D wrote assignments 11 and 12. Student E wrote assignments 3 and 1. Students F wrote assignments 2 and 20. Student G wrote assignments 16 and 6. Student H wrote assignments 14 and 5. Student I wrote assignments 18 and 9. Student J wrote assignments 8 and 4. The number and percentage of sentences in each category for each story are presented in Table 1.

Of these 844 sentences analyzed in the study, 26.76% (n = 226) were coded as "report sentence/attributed," and 24.29% (n = 205) were coded as "report sentence/unattributed. The "inference sentence/labeled" category included 1.90% (n = 16) of the sentences, while the "inference sentence/unlabeled" category included 9.72% (n = 82) of the sentences. In addition, 12.09% (n = 102) of the sentences were

Table 1

Length and Content Category Percentages

Assignment	No. of Sentences	Hayakawa-Lowry Categories (percent)								
		RA	RU	IL	IU	JAF	JAU	JUF	JUU	O
1	48	14.58	14.58	2.08	4.17	20.83	18.75	10.42	4.17	10.42
2	39	17.95	7.69	7.69	12.82	10.26	10.26	15.38	15.38	2.56
3	36	27.78	27.78	0.00	16.67	5.56	2.78	16.67	2.78	0.00
4	50	24.00	32.00	2.00	10.00	12.00	6.00	4.00	10.00	0.00
5	59	54.24	16.95	0.00	3.39	11.86	3.39	5.08	5.08	0.00
6	37	27.03	16.22	2.70	0.00	24.32	2.70	10.81	16.22	0.00
7	52	21.15	17.31	5.77	15.38	9.62	21.15	3.85	5.77	0.00
8	39	23.08	28.21	2.56	20.51	5.13	2.56	7.69	10.26	0.00
9	55	16.36	43.64	3.64	3.64	7.27	3.64	9.09	9.09	3.64
10	23	30.43	4.35	0.00	8.70	8.70	8.70	21.74	8.70	8.70
11	39	41.03	25.64	0.00	5.13	10.26	0.00	15.38	0.00	2.56
12	47	42.55	19.15	0.00	6.38	25.53	0.00	6.38	0.00	0.00

Table 1 (Continued)

Assignment	No. of Sentences	Hayakawa-Lowry Categories (percent)								
		RA	RU	IL	IU	JAF	JAU	JUF	JUU	O
13	34	32.35	47.06	0.00	5.88	5.88	0.00	8.82	0.00	0.00
14	46	28.26	34.78	4.35	8.70	8.70	2.17	10.87	0.00	2.17
15	43	23.26	13.95	0.00	6.98	16.28	9.30	13.95	9.30	6.98
16	28	25.00	28.57	3.57	17.86	14.29	7.14	3.57	0.00	0.00
17	53	9.43	50.94	0.00	11.32	7.55	0.00	18.87	0.00	1.89
18	34	20.59	17.65	0.00	26.47	14.71	5.88	8.82	5.88	0.00
19	29	31.03	24.14	0.00	6.90	20.69	3.45	10.34	3.45	0.00
20	53	26.42	5.66	1.89	11.32	5.66	30.19	1.89	15.09	1.89
Total	844	26.78	24.29	1.90	9.72	12.09	7.35	9.72	6.16	2.01

Note: RA = report sentence/attributed; RU = report sentence/unattributed; IL = inference sentence/labeled; IU = inference sentence/unlabeled; JAF = judgment sentence/attributed/favorable; JAU = judgment sentence/attributed/unfavorable; JUF = judgment sentence/unattributed/favorable; JUU = judgment sentence/unattributed/unfavorable; O = other.

"judgment/attributed/favorable," 7.35% (*n* = 62) of the sentences were "judgment/attributed/unfavorable," 9.72% (*n* = 82) of the sentences were "judgment/unattributed/favorable," and 6.16% (*n* = 52) of the sentences were "judgment/unattributed/unfavorable." The "other" category included 2.01% (*n* = 17) of the sentences. This data is represented in Figure 6.

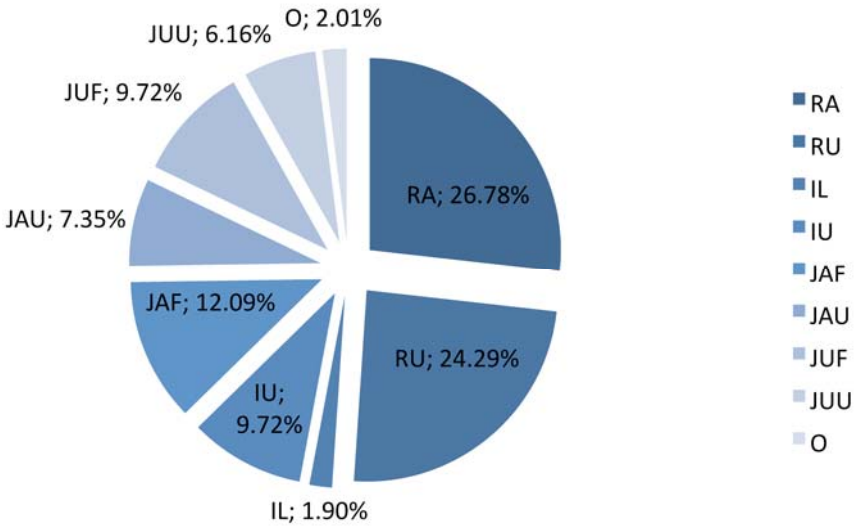


Figure 6. Number of Sentences and Content Category Percentages (*n* = 844)

Note: RA = report sentence/attributed; RU = report sentence/unattributed; IL = inference sentence/labeled; IU = inference sentence/unlabeled; JAF = judgment sentence/attributed/favorable; JAU = judgment sentence/attributed/unfavorable; JUF = judgment sentence/unattributed/favorable; JUU = judgment sentence/unattributed/unfavorable; O = other.

Based on the recoding to Hayakawa's original three categories, of the 844 sentences in this study, 51.07% (*n* = 431) of the sentences were reports, 11.61% (*n* = 98) of the sentences were inferences, 35.31% (*n* = 298) of the sentences were judgments, and 2.01% (*n* = 17) of the sentences were coded as other. This data is presented in Figure 7.

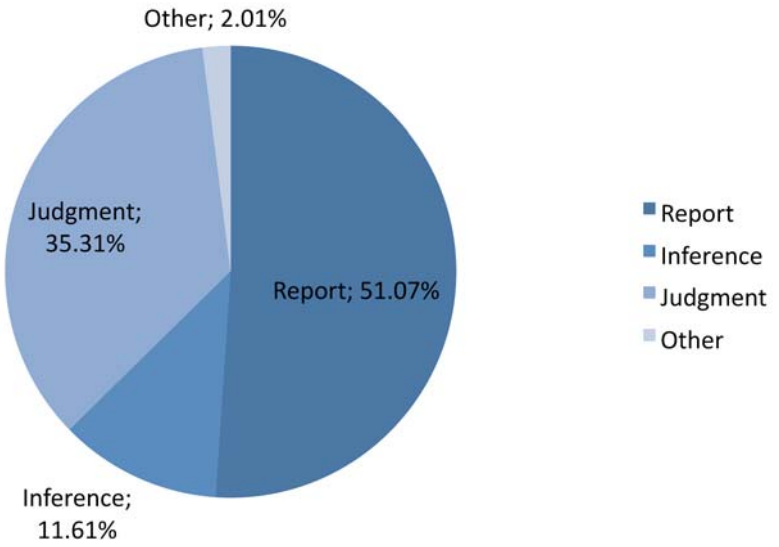


Figure 7. Original Hayakawa Category Percentages (n = 844)

Of the 377 sentences in Set 1, 55.17% (n = 208) of the sentences were reports, 14.85% (n = 56) of the sentences were inferences, 28.91% (n = 109) of the sentences were judgments, and 1.06% (n = 4) of the sentences were coded as other. This data is presented in Figure 8.

Of the 467 sentences in Set 2, 47.54% (n = 222) of the sentences were reports, 8.99% (n = 42) of the sentences were inferences, 40.47% (n = 189) of the sentences were judgments, and 2.78% (n = 13) of the sentences were coded as other. This data is presented in Figure 9.

The number and percentage of sentences in each category, as well as the objectivity level for each student news writing assignment and an overall objectivity level for all 20 assignments, are presented in Table 2. Seventy-five percent (n = 15) of the student news writing assignments were more objective than judgmental and 25% (n = 5) of the student news writing assignments were more judgmental than objective. No student news writing assignments were equally objective and judgmental. Overall, the 20 student news writing assignments were more objective than judgmental with an overall objectivity level of

1.80. News writing assignments in Set 1 were more objective than judgmental with an overall objectivity level of 1.73. News writing assignments in Set 2 were more objective than judgmental with an overall objectivity level of 1.89.

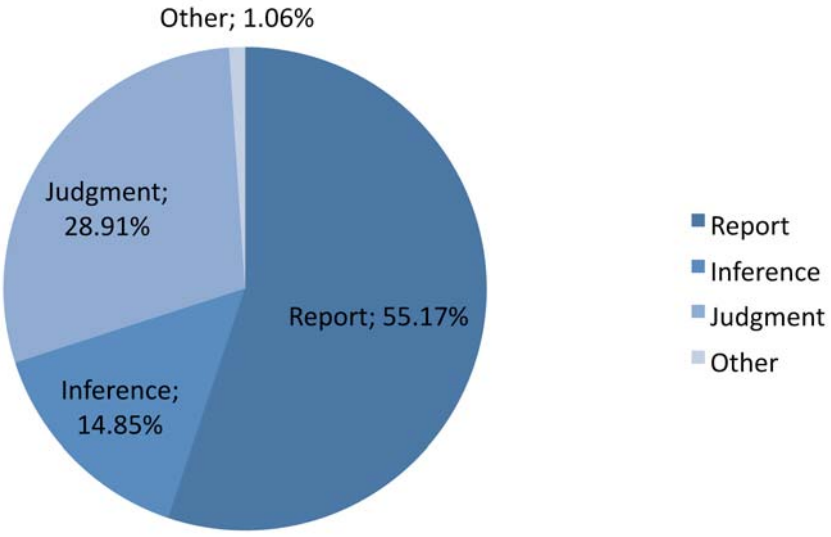


Figure 8. Original Hayakawa Category Percentages for Set 1 (*n* = 377)

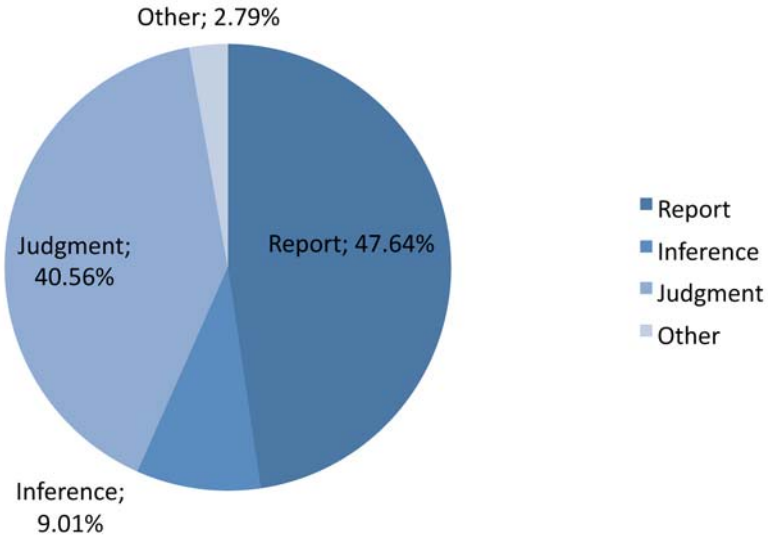


Figure 9. Original Hayakawa Category Percentages for Set 2 (*n* = 467)

Table 2

Objectivity Levels for News Writing Assignments

Assignment	Total No. of Sentences	No. of Reports Sentences	No. of Inferences Sentences	No. of Judgment Sentences	No. of Other Sentences	Objectivity Level (Mean)
1	48	13	3	26	5	2.04
2	39	10	8	20	1	2.21
3	36	20	6	10	0	1.72
4	50	28	6	16	0	1.76
5	59	42	2	15	0	1.54
6	37	16	1	20	0	2.11
7	52	20	11	21	0	2.02
8	39	20	9	10	0	1.74
9	55	33	4	16	2	1.62
10	23	8	2	11	2	1.96
11	39	26	2	10	1	1.54
12	47	29	3	15	0	1.70

Table 2 (Continued)

Assignment	Total No. of Sentences	No. of Reports Sentences	No. of Inferences Sentences	No. of Judgment Sentences	No. of Other Sentences	Objectivity Level (Mean)
13	34	27	2	5	0	1.35
14	46	29	6	10	1	1.54
15	43	16	3	21	3	1.98
16	28	15	6	7	0	1.71
17	53	32	6	14	1	1.62
18	34	13	9	12	0	1.97
19	29	16	2	11	0	1.83
20	53	17	7	28	1	2.17
Total	844	430	98	298	17	1.80
Percentage	100.00	50.95	11.61	35.31	2.01	-

Findings Related to Research Question 2

Research question 2 sought to determine how agricultural communications students used judgment statements in their news writing before and after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories.

The 20 news writing assignments analyzed in this study contained 844 sentences, and 298 sentences were coded as "judgment sentence/attributed/favorable," "judgment sentence/attributed/unfavorable," "judgment sentence/unattributed/favorable," or "judgment sentence/unattributed/unfavorable." Of the 298 judgment sentences, 61.74% (n = 184) were favorable toward the topic while 38.26% (n = 114) were unfavorable toward the topic. This is presented in Figure 10.

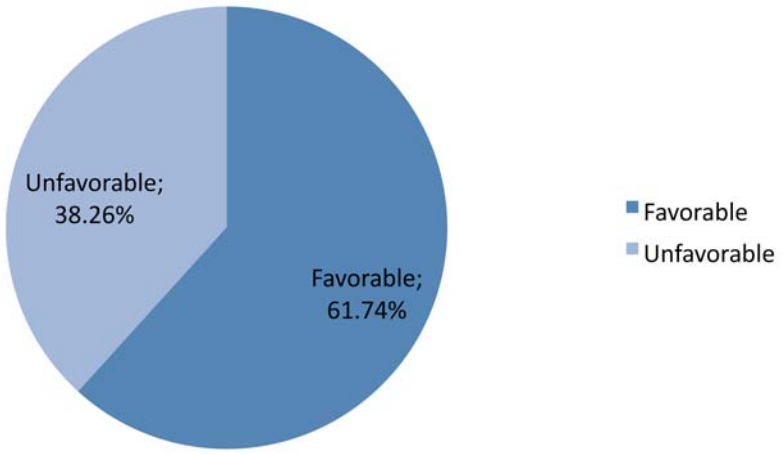


Figure 10. Overall Use of Judgment Statements in Set 1 and Set 2 (n = 298)

The assignments in Set 1 contained 377 sentences, of which 117 sentences were coded as judgments. Favorable judgment statements represented 77.78% (n = 91) of the judgments and unfavorable judgment statements represented 22.22% (n = 26). This data is presented in Figure 11.

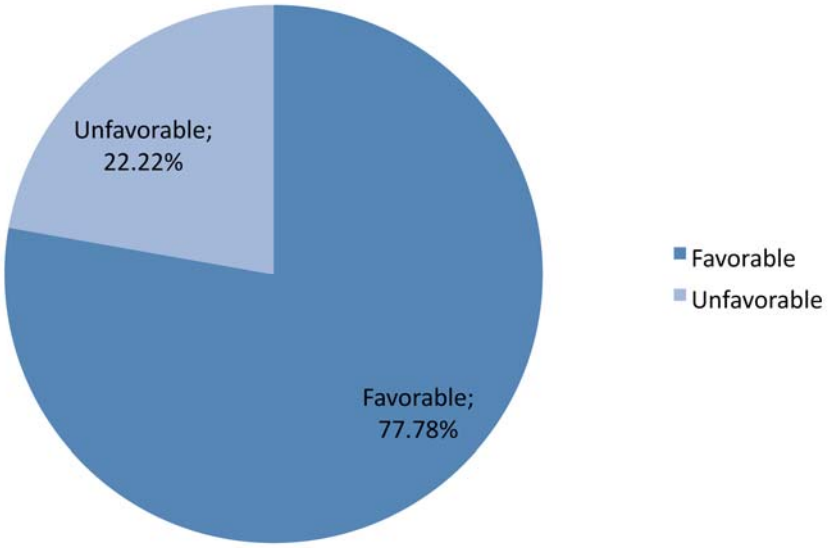


Figure 11. Overall Use of Judgment Statements in Set 1 (*n* = 117)

The assignments in Set 2 contained 467 sentences, of which 189 sentences were coded as judgments. Favorable judgment statements represented 53.44% (*n* = 101) of the judgments and unfavorable judgment statements represented 46.56% (*n* = 88). This data is presented in Figure 12.

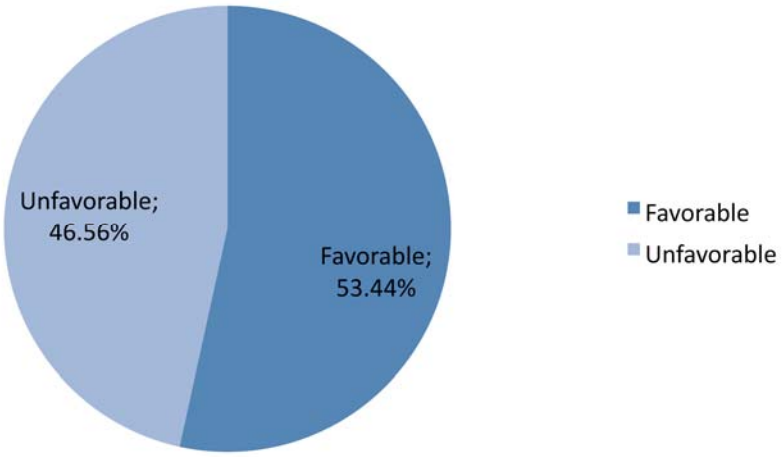


Figure 12. Overall Use of Judgment Statements in Set 2 (*n* = 189)

Set 1, which was written before students attended a lecture and received a handout about the Hayakawa-Lowry news bias training, included assignments 2, 3, 8, 11, 13, 14, 16, 17, 18, and 19. In regard to their use of judgment statements, 80% (n = 8) of the students used more favorable judgment statements than unfavorable judgment statements and 20% (n = 2) of the students used an equal amount of favorable and unfavorable judgment statements. The percentage of favorable and unfavorable judgment statements for each assignment in Set 1 is presented in Table 3 and Figure 13.

Table 3

Use of Judgment Statements in Set 1

Student	Assignment	Percent of Favorable Judgment Statements (Set 1)	Percent of Unfavorable Judgment Statements (Set 1)
A	13	100.00	0.00
B	17	100.00	0.00
C	19	81.82	18.18
D	11	100.00	0.00
E	3	80.00	20.00
F	2	50.00	50.00
G	16	71.43	28.57
H	14	90.00	10.00
I	18	66.67	33.33
J	8	50.00	50.00

Set 1, which was written before students attended a lecture and received a handout about the Hayakawa-Lowry news bias training, included assignments 1, 4, 5, 6, 7, 9, 10,

12, 15, and 20. In regard to their use of judgment statements, 70% (n = 7) of the students used more favorable judgment statements than unfavorable judgment statements, 10% (n = 1) of the students used an equal amount of favorable and unfavorable judgment statements, and 20% (n = 2) of the students used more unfavorable judgment statements than favorable judgment statements. The percentage of favorable and unfavorable judgment statements for each assignment in Set 2 is represented in Table 4 and Figure 14.

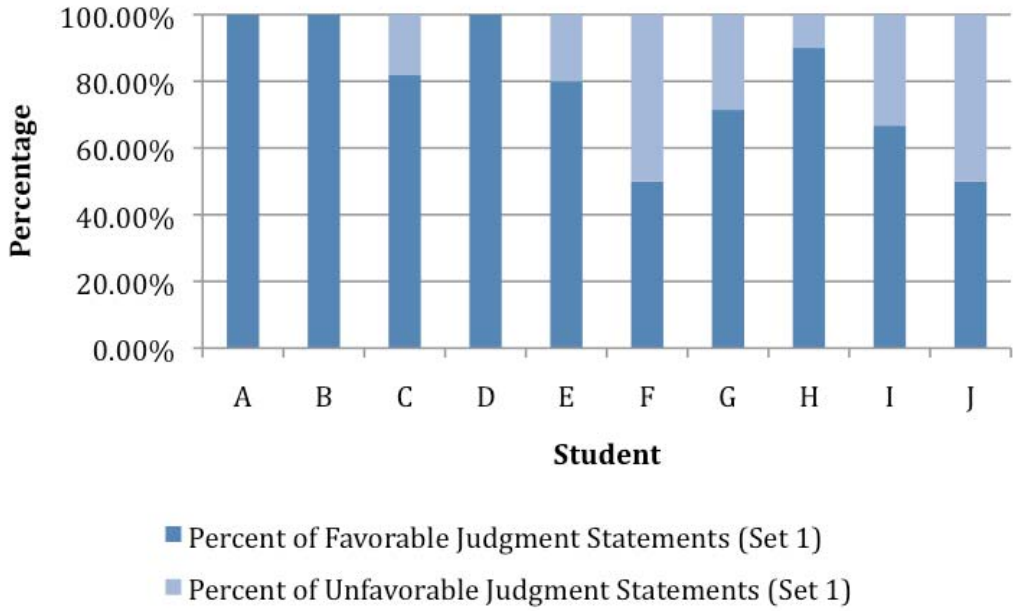


Figure 13. Use of Judgment Statements in Set 1

Table 4

Use of Judgment Statements in Set 2

Student	Assignment	Percent of Favorable Judgment Statements (Set 1)	Percent of Unfavorable Judgment Statements (Set 1)
A	15	61.90	38.10
B	7	33.33	66.67
C	10	63.64	36.36
D	12	100.00	0.00

Table 4 (Continued)

Student	Assignment	Percent of Favorable Judgment Statements (Set 1)	Percent of Unfavorable Judgment Statements (Set 1)
E	1	57.69	42.31
E	1	57.69	42.31
F	20	14.29	85.71
G	6	65.00	35.00
H	5	66.67	33.33
I	9	56.25	43.75
J	4	50.00	50.00

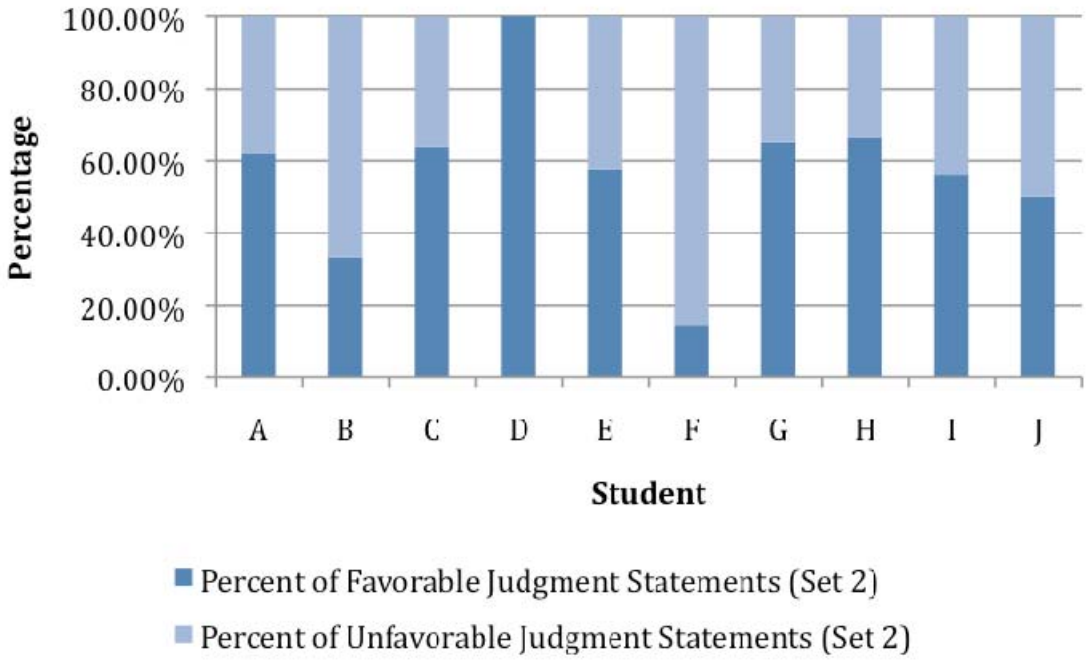


Figure 14. Use of Judgment Statements in Set 2

Findings Related to Research Question 3

Research question 3 sought to determine if the objectivity level of agricultural communications students' news writing changed after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories.

The changes in objectivity level for each student from Set 1 and Set 2 and the change in the overall objectivity level for all 20 assignments are presented in Table 5.

Table 5

Objectivity Levels for Set 1 and Set 2

Student	Objectivity level (Set 1)	Objectivity level (Set 2)	Change in Objectivity Level
A	1.35	1.98	+0.63
B	1.67	2.02	+0.35
C	1.83	1.96	+0.13
D	1.54	1.70	+0.16
E	1.72	2.04	+0.32
F	2.21	2.17	-0.04
G	1.71	2.11	+0.40
H	1.54	1.54	0.00
I	1.97	1.62	-0.35
J	1.74	1.76	+0.02
Overall	1.73	1.89	+0.16

The objectivity level of 20% (n = 2) of the students' news writing assignments decreased from Set 1 to Set 2. The objectivity level of 70% (n = 7) of the students' news writing assignments increased from Set 1 to Set 2. The objectivity level of 10% (n = 1) of

the students' news writing assignments did not change from Set 1 to Set 2.The mean objectivity level of news writing assignments increased from Set 1 to Set 2, from 1.73 to 1.89, respectively. Overall, assignments in both Set 1 and Set 2 were more objective than judgmental.

A paired *t*-test was used to compare the objectivity level of assignments in Set 1 and Set 2. The *t*-test revealed no statistically significant difference between the objectivity levels of assignments in Set 1 and Set 2 at an *a priori* determined alpha level of .05. This data is presented in Table 6.

Table 6

Set 1 vs. Set 2 t-test for Objectivity Level

Set	*N*	Mean	SEM	*T*	P
Set 1	10	1.728	0.0759	-	-
Set 2	10	1.890	0.0689	1.86	0.0966

df = 9; standard error of difference = 0.087; α = 0.05

Findings Related to Research Question 4

Research question 4 sought to determine if the use of judgment statements in agricultural communications students' news writing changed after those students attended a lecture and received a handout about the Hayakawa-Lowry news bias categories.

Each student's use of favorable judgment statements in Set 1 and Set 2 and the overall use of favorable judgment statements for all 20 assignments are presented in Table 7. Eighty percent ($n = 8$) of the students decreased their use of favorable judgment statements from Set 1 to Set 2, and 20% ($n = 2$) of the students' use of favorable judgment statements remained constant. Overall, the use of favorable judgment statements decreased from 77.78% in Set 1 to 53.44% in Set 2.

A paired t-test was used to compare students' use of favorable judgment statements in Set 1 and Set 2. The *t*-test revealed a statistically significant difference between the use of favorable judgment statements in Set 1 and Set 2 at an *a priori* determined alpha level of .05. This data is presented in Table 8.

Table 7

Use of Favorable Judgments Statements in Set 1 and Set 2

Student	Percentage of Favorable Judgment Statements (Set 1)	Percentage of Favorable Judgment Statements (Set 2)
A	100.00	61.90
B	100.00	33.33
C	81.82	63.64
D	100.00	100.00
E	80.00	57.69
F	50.00	14.29
G	71.43	65.00
H	90.00	66.67
I	66.67	56.25
J	50.00	50.00
Overall	77.78	53.44

Table 8

Set 1 vs. Set 2 t-test for Use of Favorable Judgment Statements

Set	*N*	Mean	SEM	*t*	P
1	10	78.99	6.10	-	-
2	10	56.88	7.08	3.4019	0.0078

df = 9; standard error of difference = 6.501; α = 0.05

Each student's use of unfavorable judgment statements in Set 1 and Set 2 and the overall use of unfavorable judgment statements for all 20 assignments are presented in Table 9.

Table 9

Use of Unfavorable Judgments Statements in Set 1 and Set 2

Student	Percentage of Unfavorable Judgment Statements (Set 1)	Percentage of Unfavorable Judgment Statements (Set 2)
A	0.00	38.10
B	0.00	66.67
C	18.18	36.36
D	0.00	0.00
E	20.00	42.31
F	50.00	85.71
G	28.57	35.00
H	10.00	33.33
I	33.33	43.75
J	50.00	50.00
Overall	22.22	46.56

Eighty percent (n = 8) of the students increased their use of favorable judgment statements from Set 1 to Set 2, and 20% (n = 2) of the students' use of unfavorable judgment statements remained constant. Overall, the use of unfavorable judgment statements increased from 22.22% in Set 1 to 46.56% in Set 2.

A paired t-test was used to compare students' use of unfavorable judgment statements in Set 1 and Set 2. The *t*-test revealed a statistically significant difference between the use of unfavorable judgment statements in Set 1 and Set 2 at an *a priori* determined alpha level of .05. This data is presented in Table 10.

Table 10

Set 1 vs. Set 2 t-test for Use of Unfavorable Judgment Statements

Set	*N*	Mean	SEM	*t*	P
1	10	21.01	6.10	-	-
2	10	43.12	7.08	3.4019	0.0078

df = 9; standard error of difference = 6.501; α = 0.05

Findings Related to Research Question 5

Research question 5 sought to determine how agricultural communications students perceived the objectivity level of their news writing before and six months after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories.

Question 6 on both Surveys 1 and 2 asked participants to indicate if they felt their writing was "more objective than judgmental," "equally objective and judgmental," or "more judgmental than objective" A response of "more objective than judgmental" was given a value of 1, a response of "equally objective and judgmental" was given a value of 2, and a response of "more judgmental than objective" was given a value of 3 to correspond with the interpretation of the mean objectivity level calculated by the coding of sentences into Hayakawa's original trichotomy of sentences and the definition of these terms presented in Chapter I.

For question 6 on Survey 1, 50% (n = 5) of the students indicated they felt their writing was "more objective than judgmental" and 50% (n = 5) of the students indicated they felt their writing was "equally objective and judgmental." No students indicated they felt their writing was "more judgmental than objective." The average score for student responses to question 6 on Survey 1 was 1.5. This data is presented in Table 11.

For question 6 on Survey 2, 60% (n = 6) of the students indicated they felt their writing was "more objective than judgmental" and 40% (n = 4) of the students indicated they felt their writing was "equally objective and judgmental." No students indicated they felt their writing was "more judgmental than objective." The average score for student responses to question 6 on Survey 2 was 1.4. This data is presented in Table 11.

A paired t-test was used to compare students' perceptions of the objectivity level of their news writing in Survey 1 and Survey 2. The t-test revealed no statistically significant difference between students' perceptions of the objectivity level of their news writing in Survey 1 and Survey 2 at an *a priori* determined alpha level of .05. This data is presented in Table 12.

Table 11

Perceptions of Objectivity Level in Survey 1 and Survey 2

Student	Perceptions of Objectivity (Survey 1)	Perceptions of Objectivity (Survey 2)	Change in perceptions of objectivity
A	1	1	0
B	2	1	-1
C	2	2	0
D	2	2	0
E	1	2	+1

Table 11 (Continued)

Student	Perceptions of Objectivity (Survey 1)	Perceptions of Objectivity (Survey 2)	Change in perceptions of objectivity
F	2	2	0
G	1	1	0
H	1	1	0
I	1	1	0
J	2	1	-1
Overall	1.5	1.4	-0.10

Table 12

Survey 1 vs. Survey 2 t-test for Perceptions of Objectivity Level

Survey	*N*	Mean	SEM	*t*	P
1	10	1.50	0.17	-	-
2	10	1.40	0.16	0.5571	0.5911

df = 9; standard error of difference = 0.180; α = 0.05

Findings Related to Research Question 6

Research question 6 sought to determine if agricultural communications students' perceptions of the objectivity level of their news writing matched the objectivity level of their writing as measured by the Hayakawa-Lowry methodology.

Question 6 on Survey 1 asked participants to indicate if they felt their news writing was "more objective than judgmental," "equally objective and judgmental," or "more judgmental than objective." A response of "more objective than judgmental" was given a value of 1, a response of "equally objective and judgmental" was given a value of 2, and a response of "more judgmental than objective" was given a value of 3 to

correspond with the interpretation of the mean objectivity level calculated by the coding of sentences into Hayakawa's original trichotomy of sentences and the definition of these terms presented in Chapter I. Similarly, an objectivity level was calculated for each student writing assignment. News writing assignments with an objectivity level of 1.00 to 1.99 were designated "more objective than judgmental" and given a score of 1, news writing assignments with an objectivity level of 2.00 were designated "equally objective and judgmental," and news writing assignments with an objectivity level of 2.01 to 3.00 were designated "more judgmental than objective" and given a score of 3. Participant responses to question 6 on Survey 1 and the objectivity level of assignments in Set 1 as measured by the Hayakawa-Lowry content analysis methodology is presented in Table 13.

A paired t-test was used to compare students' responses to question 6 on Survey 1 and the objectivity levels of assignments in Set 1. The *t*-test revealed a statistically significant difference between responses to question 6 on Survey 1 and the objectivity levels of assignments in Set 1 at an *a priori* determined alpha level of .05. This data is presented in Table 14.

Table 13

Perceptions of Objectivity Level in Survey 1 and Objectivity Level in Set 1

Student	Perceptions of objectivity (Survey 1)	Objectivity level (Set 1)	Difference between Survey 1 and Set 1
A	1	1	0
B	2	1	-1
C	2	1	-1
D	2	1	-1

Table 13 (Continued)

Student	Perceptions of objectivity (Survey 1)	Objectivity level (Set 1)	Difference between Survey 1 and Set 1
E	1	1	0
F	2	2	0
G	1	1	0
H	1	1	0
I	1	1	0
J	2	1	-1
Overall	1.5	1.1	-0.40

Table 14

Survey 1 vs. Set 1 t-test for Objectivity Level

Group	*N*	Mean	SEM	*T*	P
Survey 1	10	1.50	0.17	-	-
Set 1	10	1.10	0.10	2.45	0.0368

df = 9; standard error of difference = 0.163; α = 0.05

Question 6 on Survey 2 was identical to question 6 on Survey 1. Using the same method as discussed for Survey 1 and Set 1, student responses and objectivity levels were given values of 1, 2, or 3. Participant responses to question 6 on Survey 2 and the objectivity level of assignments in Set 2 as measured by the Hayakawa-Lowry content analysis methodology is presented in Table 15.

A paired t-test was used to compare students' responses to question 6 on Survey 2 and the objectivity levels of assignments in Set 2. The *t*-test revealed no statistically significant difference between responses to question 6 on Survey 2 and the objectivity

levels of assignments in Set 2 at an *a priori* determined alpha level of .05. This data is presented in Table 16.

Table 15

Perceptions of Objectivity Level in Survey 2 and Objectivity Level in Set 2

Student	Perceptions of objectivity (Survey 2)	Objectivity level (Set 2)	Difference between Survey 2 and Set 2
A	1	1	0
B	1	2	+1
C	2	1	-1
D	2	1	-1
E	2	2	0
F	2	2	0
G	1	2	+1
H	1	1	0
I	1	1	0
J	1	1	0
Overall	1.5	1.4	-0.10

Table 16

Survey 2 vs. Set 2 t-test for Objectivity Level

Group	*N*	Mean	SEM	*T*	P
Survey 2	10	1.40	0.16	-	-
Set 2	10	1.40	0.16	0.00	1.0000

df = 9; standard error of difference = 0.211; α = 0.05

Findings Related to Research Question 7

Research question 7 sought to determine how agricultural communications students perceived their use of judgment statements in their news writing before and six month after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories.

Question 7 on both Surveys 1 and 2 were closed-ended, scaled response items to determine how students perceived their use of judgment statements. Participants were asked to indicate if, when they use judgment statements, "more of the judgment statements are favorable toward the topic," "there are an equal amount of judgment statements favorable and unfavorable toward the topic," or "more of the judgment statements are unfavorable toward the topic." Because the questions were scaled-response items scored as continuous variables, responses of "more of the judgment statements are favorable toward the topic" were given a score of 1. Responses of "there are an equal amount of judgment statements favorable and unfavorable toward the topic" were given a score of 2. Responses of "more of the judgment statements are unfavorable toward the topic" were given a score of 3.

For question 7 on Survey 1, 60% (n = 6) of the students indicated they felt when they use judgment statements "more of the judgment statements are favorable toward the topic" and 40% (n = 4) of the students indicated they felt "there are an equal amount of judgment statements favorable and unfavorable toward the topic." No students indicated they felt "more of the judgment statements are unfavorable toward the topic." The average score for student responses to question 7 on Survey 1 was 1.4. This data is presented in Table 13.

For question 7 on Survey 2, 70% (n = 7) of the students indicated they felt when they use judgment statements "more of the judgment statements are favorable toward the topic" and 30% (n = 3) of the students indicated they felt "there are an equal amount of judgment statements favorable and unfavorable toward the topic." No students indicated they felt "more of the judgment statements are unfavorable toward the topic." The average score for student responses to question 7 on Survey 2 was 1.3. This data is presented in Table 17.

A paired t-test was used to compare students' responses to question 7 on Survey 1 and Survey 2. The *t*-test revealed no statistically significant difference between students' perceptions of their use of judgment statements in their news writing in Survey 1 and Survey 2 at an *a priori* determined alpha level of .05. This data is presented in Table 18.

Table 17

Perceptions of Use of Judgment Statements in Survey 1 and Survey 2

Student	Perceptions of use of judgment statements (Survey 1)	Perceptions of use of judgment statements (Survey 2)	Change in perceptions of use of judgment statements
A	1	1	0
B	2	2	0
C	2	1	-1
D	1	1	0
E	1	1	0
F	2	2	0
G	2	2	0
H	1	1	0

Table 17 (Continued)

Student	Perceptions of use of judgment statements (Survey 1)	Perceptions of use of judgment statements (Survey 2)	Change in perceptions of use of judgment statements
I	1	1	0
J	1	1	0
Overall	1.4	1.3	-0.10

Table 18

Survey 1 vs. Survey 2 t-test for Perceptions of Use of Judgment Statements

Survey	*N*	Mean	SEM	*T*	P
1	10	1.40	0.16	-	-
2	10	1.30	0.15	1.00	0.3434

df = 9; standard error of difference = 0.100; α = 0.05

Findings Related to Research Question 8

Research question 8 sought to determine if agricultural communications students' perceptions of their use of judgment statements in their news writing matched their use of judgment statements as measured by the Hayakawa-Lowry methodology.

Question 7 on both Surveys 1 and 2 asked participants to indicate when they use judgment statements, "more of the judgment statements are favorable toward the topic," "there are an equal amount of judgment statements favorable and unfavorable toward the topic," or "more of the judgment statements are unfavorable toward the topic." Responses were given a score of 1, 2, or 3, respectively. Student use of judgment statements as measured by the Hayakawa-Lowry content analysis methodology were given scores corresponding to these categories.

Participant perceptions of their use of judgment statements in Survey 1 and their use of judgment statements in Set 1 as measured by the Hayakawa-Lowry content analysis methodology is presented in Table 19.

A paired t-test was used to compare students' responses to question 7 on Survey 1 and their use of judgment statements in Set 1. The *t*-test revealed no statistically significant difference between responses to question 7 on Survey 1 and the use of judgment statements in Set 1 at an *a priori* determined alpha level of .05. This data is presented in Table 20.

Table 19

Perceptions of Use of Judgment Statements in Survey 1 and Use of Judgment Statements in Set 1

Student	Perceptions of objectivity (Survey 1)	Objectivity level (Set 1)	Difference between Survey 1 and Set 1
A	1	1	0
B	2	1	-1
C	2	1	-1
D	1	1	0
E	1	1	0
F	2	2	0
G	2	1	-1
H	1	1	0
I	1	1	0
J	1	2	+1
Overall	1.4	1.2	-0.20

Table 20

Survey 1 vs. Set 1 t-test for Use of Judgment Statements

Group	*N*	Mean	SEM	*T*	P
Survey 1	10	1.40	0.16	-	-
Set 1	10	1.20	0.13	1.00	0.3434

df = 9; standard error of difference = 0.200; α = 0.05

Participant perceptions of their use of judgment statements in Survey 2 and their use of judgment statements in Set 2 as measured by the Hayakawa-Lowry content analysis methodology is presented in Table 21.

A paired t-test was used to compare students' responses to question 7 on Survey 2 and their use of judgment statements in Set 2. The *t*-test revealed no statistically significant difference between responses to question 7 on Survey 2 and the use of judgment statements in Set 2 at an *a priori* determined alpha level of .05. This data is presented in Table 22.

Table 21

Perceptions of Use of Judgment Statements in Survey 2 and Use of Judgment Statements in Set 2

Student	Perceptions of objectivity (Survey 2)	Objectivity level (Set 2)	Difference between Survey 2 and Set 2
A	1	1	0
B	2	3	+1
C	1	1	0
D	1	1	0
E	1	1	0

Table 21 (Continued)

Student	Perceptions of objectivity (Survey 2)	Objectivity level (Set 2)	Difference between Survey 2 and Set 2
F	2	3	+1
G	2	1	-1
H	1	1	0
I	1	1	0
J	1	2	+1
Overall	1.3	1.5	+0.20

Table 22

Survey 2 vs. Set 2 t-test for Use of Judgment Statements

Group	*N*	Mean	SEM	*T*	P
Survey 1	10	1.30	0.15	-	-
Set 1	10	1.50	0.27	1.00	0.3434

df = 9; standard error of difference = 0.200; α = 0.05

CHAPTER V

CONCLUSION

Chapter Overview

Chapter I provided an introduction to the study, and Chapter II identified, outlines, and discusses literature related to objectivity and bias in the media, objectivity in journalism education, the history of content analysis methodology, the Hayakawa-Lowry content analysis methodology, and survey methodology and design. Normative theories of the press, specifically the social responsibility theory of the press, which will serve as the theoretical framework for this study, also were described in this chapter.

Chapter III described the research design, variables, population and sampling procedures, instrumentation, validity and reliability issues, and data collection and analysis procedures. Chapter III also addressed validity and reliability issues associated with the Hayakawa-Lowry content analysis methodology (Lowry, 1985) and a researcher-designed survey instrument, as well as the data collection and analysis procedures employed to answer the eight research questions presented in the study.

Chapter IV presented the findings for each research question of this study, and this chapter presents a summary of the findings, conclusions and recommendations based on the data presented. The conclusions presented in this chapter are extended to the entire AGCM 3113 class because census studies "permit conclusions to be drawn about the entire population" (Creswell, 2005, p. 359).

Purpose of the Study

The purpose of this study was to determine if and/or how the objectivity level and use of judgment statements in agricultural communications students' news writing are affected after those students attend a lecture and receive a handout about the Hayakawa-Lowry news bias categories.

Research Questions

The study addressed the following research questions:

1. What is the objectivity level of agricultural communications students' news writing before and after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
2. How do agricultural communications students use judgment statements in their news writing before and after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
3. Does the objectivity level of agricultural communications students' news writing change after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
4. Does agricultural communications students' use of judgment statements in their news writing change after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
5. How do agricultural communications students perceive the objectivity level of their news writing before and six months after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?

6. Do agricultural communications students' perceptions of the objectivity level of their news writing match the objectivity level of their writing as measured by the Hayakawa-Lowry methodology?
7. How do agricultural communications students perceive their use of judgment statements in their news writing before and six months after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories?
8. Do agricultural communications students' perceptions of their use of judgment statements in their news writing match their use of judgment statements as measured by the Hayakawa-Lowry methodology?

Procedures

This study employed the Hayakawa-Lowry content analysis methodology (Lowry, 1985) and a researcher-designed survey instrument to answer the eight research questions presented in the study. The population for this study consisted of agricultural communications students enrolled in AGCM 3113: Writing for Agricultural Publications during the spring 2008 semester at Oklahoma State University ($N = 17$). The study was designed to collect census data from the population; thus, no sampling was required. Ten students chose to participate in the study. Therefore, the target population was $N = 10$.

Summary of Findings

The 10 students participating in the study had a mean age of 20.5 years old. A majority of the students were female (90%), and all of the students (100%) were "White." A majority of the students (70%) were pursuing a bachelor's degree in Agricultural Communications, and half of the students (50%) were classified as a junior. The mean grade point average of participating students was 3.335 on a 4.0 scale. Participants' mean

ACT composite score was 22.56, with a range of 17 to 33. Participants' mean ACT English score was 24, with a range of 15 to 35.

Research question 1 sought to determine the objectivity level of agricultural communications students' news writing before and after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories.

The 20 news writing assignments in the study included 844 total sentences. A majority of the sentences (51.07%) of the sentences were coded as report statements. A higher percentage of sentences were coded judgment statements (35.31%) than inference statements (11.61%).

Set 1 included 377 total sentences, and the assignments in Set 1 had an average of 37.7 sentences. A majority of the sentences (55.17%) of the sentences were coded as report statements. More sentences were coded judgment statements (28.91%) than inference statements (14.85%). Set 2 included 467 total sentences, and the assignments in Set 2 had an average of 46.7 sentences. More sentences were coded as report statements (40.47%) than judgment statements (40.47%) or inference statements (8.99%).

A majority (75%) of the student news writing assignments were more objective than judgmental. More assignments were judgmental than objective (25%) than equally objective and judgmental (0%). The mean objectivity level of all 20 assignments indicated they were more objective than judgmental with an overall objectivity level of 1.80. Assignments in both Sets 1 and 2 were more objective than judgmental with overall objectivity levels of 1.73 and 1.89, respectively.

Research question 2 sought to determine how agricultural communications students used judgment statements in their news writing before and after attending a

lecture and receiving a handout about the Hayakawa-Lowry news bias categories. A majority of the judgment statements in the study (61.74%) were favorable toward the topic of the news writing assignment. Students' use of favorable judgment statements decreased from Set 1 (77.78%) to Set 2 (53.44%). Inversely, students' use of unfavorable judgment statements increased from Set 1 (22.22%) to Set 2 (46.56%). A majority of students in both Set 1 (80%) and Set 2 (70%) used more favorable than unfavorable judgment statements.

Research question 3 sought to determine if the objectivity level of agricultural communications students' news writing changed after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories. A majority of students (70%) increased the objectivity level of their news writing from Set 1 to Set 2. Although assignments in both Set 1 and Set 2 were more objective than judgmental, the mean objectivity level of news writing assignments increased from Set 1 (1.73) to Set 2 (1.89). This change was found not to be statistically significant (paired $t(9) = 1.86$, $p = 0.0966$).

Research question 4 sought to determine if the use of judgment statements in agricultural communications students' news writing changed after those students attended a lecture and received a handout about the Hayakawa-Lowry news bias categories.

A majority of students (80%) decreased their use of favorable judgment statements and increased their use of unfavorable judgments statements from Set 1 to Set 2. Overall, the use of favorable judgment statements decreased from Set 1 (77.78%) to Set 2 (53.44%). This change was found to be statistically significant (paired $t(9) = 3.4019$, $p = 0.0078$).

Research question 5 sought to determine how agricultural communications students perceived the objectivity level of their news writing before and six months after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories.

On Survey 1, half of the students (50%) indicated they felt their writing was "more objective than judgmental" and half of the students (50%) indicated they felt their writing was "equally objective and judgmental." On Survey 2, a majority of students (60%) indicated they felt their writing was "more objective than judgmental." More students indicated they felt their writing was "equally objective and judgmental" (40%) than "more judgmental than objective" (0%).

Student perceptions of the objectivity level of their writing had a mean score of 1.5 on Survey 1 and 1.4 on Survey 2. This change was found not to be statistically significant (paired $t(9) = 0.5571$, $p = 0.5911$).

Research question 6 sought to determine if agricultural communications students' perceptions of the objectivity level of their news writing matched the objectivity level of their writing as measured by the Hayakawa-Lowry methodology.

Student perceptions of the objectivity level of their writing had a mean score of 1.5 on Survey 1 and the mean objectivity level of their writing was 1.1 in Set 1. This difference was found to be statistically significant (paired $t(9) = 2.45$, $p = 0.0368$).

Student perceptions of the objectivity level of their writing had a mean score of 1.5 on Survey 2 and the mean objectivity level of their writing was 1.4 in Set 2. This difference was found not to be statistically significant (paired $t(9) = 0.00$, $p = 1.0000$).

Research question 7 sought to determine how agricultural communications students perceived their use of judgment statements in their news writing before and six month after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories.

On Survey 1, a majority of the students (60%) indicated they felt when they use judgment statements "more of the judgment statements are favorable toward the topic." More students (40%) indicated they felt "there are an equal amount of judgment statements favorable and unfavorable toward the topic" than "more of the judgment statements are unfavorable toward the topic" (0%). On Survey 2, a majority of the students (70%) indicated they felt when they use judgment statements "more of the judgment statements are favorable toward the topic." More students (30%) indicated they felt "there are an equal amount of judgment statements favorable and unfavorable toward the topic" than "more of the judgment statements are unfavorable toward the topic" (0%).

Student perceptions of their use of judgment statements had a mean score of 1.4 on Survey 1 and 1.3 on Survey 2. This change was found not to be statistically significant (paired $t(9) = 1.00$, $p = 0.3434$).

Research question 8 sought to determine if agricultural communications students' perceptions of their use of judgment statements in their news writing matched their use of judgment statements as measured by the Hayakawa-Lowry methodology.

Student perceptions of their use of judgment statements had a mean score of 1.4 on Survey 1 and the mean score for their use of judgment statements was 1.2 in Set 1. This difference was found not to be statistically significant (paired $t(9) = 1.00$, $p = 0.3434$).

Student perceptions of their use of judgment statements had a mean score of 1.3 on Survey 2 and the mean score for their use of judgment statements was 1.5 in Set 2. This difference was found not to be statistically significant (paired $t(9) = 1.00$, $p = 0.3434$).

Conclusions

Conclusions Related to Research Question 1

Based on the findings related to research question 1, it can be concluded the students participating in the study use a variety of sentence types when writing news articles. In addition, it can be concluded the news writing of students participating in the study fulfilled the "objectivity" standard of the social responsibility theory of the press because overall, participants' news writing assignments were more objective than judgmental.

Conclusions Related to Research Question 2

Based on the findings related to research question 2, it can be concluded when participants used judgment statements, they tended to write from a more favorable than unfavorable standpoint. However, it also can be concluded that students' news writing became more balanced in terms of favorable and unfavorable statements. As discussed in Chapter II, "balance" is a goal of the social responsibility theory of the press.

Conclusions Related to Research Question 3

Based on the findings related to research question 3, it can be concluded the students participating in the study did not become more objective writers after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories.

Conclusions Related to Research Question 4

Based on the findings related to research question 4, it can be concluded students' news writing became significantly more balanced after students attended a lecture and received a handout about the Hayakawa-Lowry news bias categories.

Conclusions Related to Research Question 5

Based on the findings related to research question 5, it can be concluded student perceptions of the objectivity level of their news writing did not change significantly after they attended a lecture and received a handout about the Hayakawa-Lowry news bias categories.

Conclusions Related to Research Question 6

Based on the findings related to research question 6, it can be concluded before students attended a lecture and received a handout about the Hayakawa-Lowry news bias categories, student perceptions of the objectivity level of their news writing did not match the objectivity level of their news writing as measured by the Hayakawa-Lowry methodology. The objectivity level of their news writing was significantly lower than student perceptions of the objectivity level of their news writing. However, after the students attended a lecture and received a handout about the Hayakawa-Lowry news bias categories, student perceptions of the objectivity level of their news writing did match the objectivity level of their news writing as measured by the Hayakawa-Lowry methodology.

Conclusions Related to Research Question 7

Based on the findings related to research question 7, it can be concluded student perceptions of their use of judgment statements did not change statistically after they

attended a lecture and received a handout about the Hayakawa-Lowry news bias categories.

Conclusions Related to Research Question 8

Based on the findings related to research question 8, it can be concluded both before and after participants attended a lecture and received a handout about the Hayakawa-Lowry news bias categories, student perceptions of their use of judgment statements in their news writing did match their use of judgment statements as measured by the Hayakawa-Lowry methodology.

Recommendations

Recommendations for Research

Based on the conclusions of this study, the researcher made several recommendations for future research. This study should be replicated as a longitudinal panel study to track the objectivity level of the use of judgment statements in these students' writing over time. This study also should be replicated as a longitudinal trend study to compare AGCM 3113 populations from semester to semester. In addition, a cross-sectional study should be conducted to compare this population to other populations, such as journalism students, other agricultural communications students, and professional journalists. An experimental study should be conducted to establish causality between Hayakawa-Lowry news bias category training and increased objectivity and balance in students' writing.

This study analyzed the objectivity level and use of judgment statements in agricultural communications students' news writing before and after those students attended a lecture and received a handout about the Hayakawa-Lowry news bias

categories. Other studies should be conducted to determine best practices for Hayakawa-Lowry news bias training. In addition, other studies should be conducted to determine the effectiveness of other methods of objectivity and balance training.

The review of literature for this study revealed a lack of a universally accepted definition and technique for achieving objectivity. Therefore, future researchers should conduct studies that seek to develop a universally accepted definition and technique for achieving objectivity and balance in news writing.

Recommendations for Practice

Based on the findings of this study, the writing of students participating in this study did or became closer to fulfilling two of the standards of the social responsibility theory of the press: objectivity and balance. Therefore, instructors at the college level should consider implementing the Hayakawa-Lowry news bias category training conducted in this study into journalism, agricultural communications and other news writing curriculum.

However, it is important to note objectivity and balance in news writing are not the only tenets of a socially responsible press and do not in and of themselves indicate a piece of writing is "good" or "bad." In fact, a piece of writing with report statements only would be considered very objective as measured by the Hayakawa-Lowry method, but would most likely be boring and uninteresting. Therefore, researchers, educators and media professional should work together to develop standardized curriculum and assessment procedures to evaluate the quality of news writing within a socially responsible press system.

The Hayakawa-Lowry news bias category training conducted in this study did not undergo formal curriculum development procedures. Therefore, it should be further investigated as a means of objectivity training for journalism, agricultural communications and other students studying news writing.

Educators should adopt a universally accepted definition and technique for achieving objectivity and balance in news writing.

Discussion

Although this thesis deals with the concepts of objectivity and balance as desirable attributes of news writing in a socially responsible press system, the researcher does not believe in the possibility of pure objectivity in journalism. As Bagdikian (1983) wrote:

> News, like all human observations, is not truly objective, in the scientific sense in which, for example, every competent mathematician will get the same sum in adding a column of figures. Human scenes described by different individuals are seen with differences. (p. 132)

Rather than striving for purely objective reporting, the researcher believes, like Layson (2006), "it may make sense for journalists to honestly articulate their values in their work in a straightforward, self-disclosing style that values facts, accuracy, and is yet framed from a specific ideological point of view" (p. 9). One of the most compelling arguments for the replacement of objectivity as a standard of journalism was presented by Mueller (2007) in an article titled "Journalistic Objectivity: Time to Abandon It?" Mueller conjectured "a partisan press that is fair and accurate yet honest in telling the audience what journalists believe and what their organizations stand for would be a great

improvement over the pose of neutrality assumed by the profession today" (Mueller, 2007, p. 23). The present researcher agrees with this logic but realizes the replacement or modification of objectivity as a journalistic standard may very well require the development of a new normative theory of the press.

In lieu of the development of a new normative theory of the press that does not require purely objective reporting, this researcher echoes the comments of Lane (2001) and feels "the development of a theoretically possible, humanly comprehensible, universally acknowledged definition, standard and technique for journalistic objectivity may very well be, therefore, the most important journalistic task" (p. 80) of the future.

With that said, it is important to note that for every scholar advocating the replacement or modification of objectivity as a journalistic standard, there is another scholar advocating its necessity in a free and democratic society. For example, Lane (2001) noted:

> If objective journalism were an outdated, unnecessary historical curiosity, there would be no cause for alarm. But it isn't, because, unfortunately, the "free world" cannot be free without it. Only people who have control over their lives can be free. And only people who are sufficiently and accurately informed about the world in which they "live, move, and have their being," can achieve control over their lives. (p. 80)

It seems that both sides of the debate about the appropriateness and role of objectivity as a journalistic standard seem to lead back to the questions posed by Myrick (2002, November) and presented in Chapter I: "Is the achievement of objectivity in news

reporting even possible, and is the expectation of objectivity on the part of the news-consuming public a reasonable one?"(p. 50).

Regardless of the answers to these questions, social responsibility theory of the press advocates objectivity and the news-consuming public expects it. Therefore, the present researcher feels it is a moot point to add to the aforementioned debate. Rather, the researcher believes educators and journalism, agricultural communications and other news writing professionals must continue to strive for journalism that embodies the tenets of the social responsibility theory. This thesis made a modest attempt to aid that effort by evaluating the effectiveness of a specific method to teach objectivity to students who are studying journalism and aspects of news writing, such as interviewing, reporting, writing, and editing.

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APPENDICES

APPENDIX A

Institutional Review Board Approval Form

Oklahoma State University Institutional Review Board

Date:	Monday, January 07, 2008
IRB Application No	AG0748
Proposal Title:	Can Objectivity be Taught? The Effects of Exposing Agricultural Communications Students to the Haykawa-Lowry News Bias Categories
Reviewed and Processed as:	Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 1/6/2009

Principal Investigator(s

Ruth Bobbitt
810 KC Court
Stillwater, OK 74075

Shelly Sitton
435 Ag Hall
Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

X The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

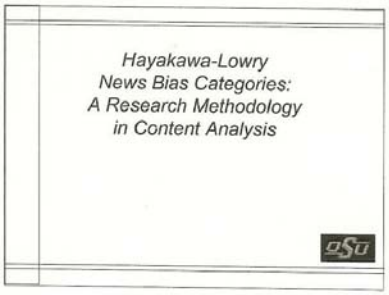
Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

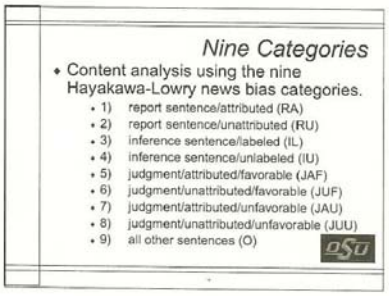
Sincerely,

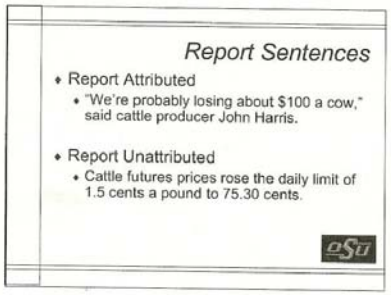
Shelia Kennison, Chair
Institutional Review Board

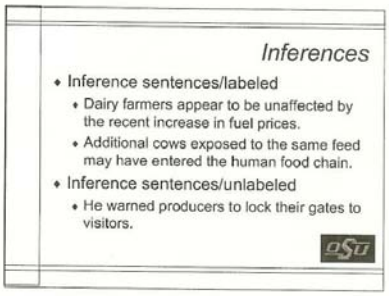
APPENDIX B

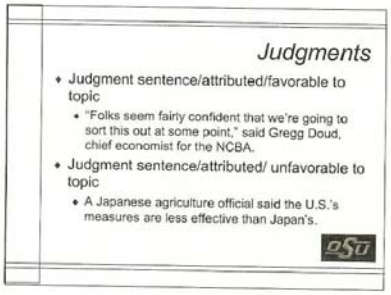
Hayakawa-Lowry Method Lecture Slides

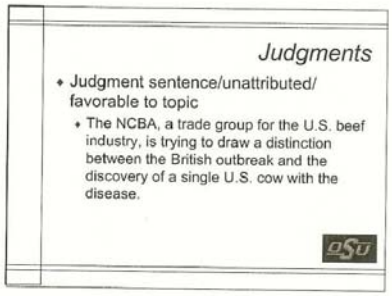

Hayakawa-Lowry
News Bias Categories:
A Research Methodology
in Content Analysis


Nine Categories
Content analysis using the nine Hayakawa-Lowry news bias categories.
1) report sentence/attributed (RA)
2) report sentence/unattributed (RU)
3) inference sentence/labeled (IL)
4) inference sentence/unlabeled (IU)
5) judgment/attributed/favorable (JAF)
6) judgment/unattributed/favorable (JUF)
7) judgment/attributed/unfavorable (JAU)
8) judgment/unattributed/unfavorable (JUU)
9) all other sentences (O)


Report Sentences
Report Attributed
"We're probably losing about $100 a cow," said cattle producer John Harris.
Report Unattributed
Cattle futures prices rose the daily limit of 1.5 cents a pound to 75.30 cents.


Inferences
Inference sentences/labeled
Dairy farmers appear to be unaffected by the recent increase in fuel prices.
Additional cows exposed to the same feed may have entered the human food chain.
Inference sentences/unlabeled
He warned producers to lock their gates to visitors.


Judgments
Judgment sentence/attributed/favorable to topic
"Folks seem fairly confident that we're going to sort this out at some point," said Gregg Doud, chief economist for the NCBA.
Judgment sentence/attributed/ unfavorable to topic
A Japanese agriculture official said the U.S.'s measures are less effective than Japan's.


Judgments
Judgment sentence/unattributed/ favorable to topic
The NCBA, a trade group for the U.S. beef industry, is trying to draw a distinction between the British outbreak and the discovery of a single U.S. cow with the disease.

APPENDIX C

Hayakawa-Lowry Method Handout

Lowry's Types of Sentences

RA	**Report sentence/attributed** *Capable of being verified*; facts, not things of personal opinion or inside someone's head. Rule 1: *A report of an inference someone else is making is still a report sentence/attributed and should be placed in category RA. But a judgment isn't.* Rule 2: Attribution can take the form of a *direct quote or an indirect quote* and can be to *a specific or general source*.
RU	**Report sentence/unattributed** Only difference from RA is that they do not cite a source.
IL	**Inference sentences/labeled** *"Statements about the unknown based upon the known"* Characteristics: *opinions*, *conclusions*, *beliefs*, feelings, *interpretations*, generalizations, implications, tells what an event means, evaluations, etc. Labeled – key words: *appear, apparently, could, look, may, maybe, might, perhaps, possible, probable, seem, sound, think, thus, likely*.
IU	**Inference sentences/unlabeled** Ask yourself: *"Who is making the inference – the reporter or someone else?"* Those make by others are probably RA. Do not have key words. Otherwise, same as IL. Look for *"relative" terminology* such as *long/short, big/small, only, problem, warned, charged, about, traditional, routine, attacked, accused, challenged,already, still, etc.*
JAF	**Judgment sentence/attributed/favorable toward agriculture** Expressions of writer's approval/disapproval of the occurrences, persons, objects he is describing; sentences that indicate *approval/disapproval, like/dislike, good/bad, etc.*
JAU	**Judgment sentence/attributed/unfavorable toward agriculture** See JAF
JUF	**Judgment sentence/unattributed/favorable toward agriculture** See JAF
JUU	**Judgment sentence/unattributed/unfavorable toward agriculture** See JAF
O	**Other sentences** All questions go into this category; catch-all category.

Note: Negative takes precedence over positive. A mixed sentence will be placed in the category as follows:
Report and Inference = Inference
Report and Judgment = Judgment
Inference and Judgment = Judgment
Report, Inference and Judgment = Judgment

APPENDIX D

Coding Manual

CODING INSTRUCTIONS
for
NEWS BIAS STUDY

Background

The following coding instructional manual is based upon the coding procedures defined by Lowry, which was used to determine the bias levels of the 1984 presidential campaign news bias study. When necessary, Lowry's methods were modified to meet the needs of this study.

The method of this study is content analysis. The content consists of two sets of student news writing assignments collected from study participants. Your function as a coder will be to code each of the sentences in each of the writing assignments.

The Content Categories

The system of categories [Lowry] developed is based upon a trichotomy of sentence types discussed by S. I. Hayakawa in *Language in Thought and Action* (1940). According to Hayakawa, the report is the basic symbolic act that enables people to exchange information on what thy have seen, heard, and felt. "Reports adhere to the following rules: first, they are capable of verification; second, they exclude, as far as possible, inferences and judgments." [Lowry] expanded Hayakawa's trichotomy of reports, inferences and judgments into a system of categories, and it is these categories that you will be using. Thus, you will be placing each sentence in the study into one, and only one, of the 9 categories. The detailed explanation of each of the categories begins on page 3.

Types of Sentences

RA Report sentence/attributed
RU Report sentence/unattributed

IL Inference sentence/labeled
IU Inference sentence/unlabeled

JAF Judgment sentence/attributed/favorable to the topic*
JUF Judgment sentence/unattributed/favorable to the topic*
JAU Judgment sentence/attributed/unfavorable to the topic*
JUU Judgment sentence/unattributed/unfavorable to the topic*

O All other sentences

*The topic is the topic of the story. It can be a person, method of production, a specific industry, etc. Each story will have a different topic.

RA: Report sentences/attributed

"Reports adhere to the following rules: first, they are capable of verification; second, they exclude, as far as possible, inferences and judgments." A report sentence, then, is one which states verifiable facts --- facts which are out in the open and observable, not things which are matters of personal opinion or inside somebody's head.

Even though the receiver may not always be able to spend the time, money and energy to verify it himself, the important thing is that a report sentence is of such a form that is capable of being verified. On of the tests you, as a coder, should apply to each sentence to determine whether it is a report sentence is: "Is the information in this sentence verifiable?"

Rule 1: A report of an inference someone else is making is still a report sentence/attributed, and should be placed in category 1. (But a report of a judgment sentence someone else is making is a judgment sentence/attributed. See rule 3.)

Rule 2; Attribution can take the form of a direct quote or an indirect quote, and can be to a specific source or a general source (e.g., "Informed sources said…").

The following are examples of RA sentences:

- "Secretary Laird said draft call for the rest of this year will average less than 10,000 a month."
- "Details were being resolved, but Japan said it would allow the import of beef from cattle 20 months of age or younger."
- "Soybean rust is spread by wind-borne spores that can travel more than 1,000 miles," said Jones.

RU: Report sentences/unattributed
The only difference between RA sentences and this category is that report sentences/unattributed are simply straight-forward reports that the correspondent makes without citing someone else as being the source of that statement or information.

The following are examples of RU sentences:

- "Soybean rust is spread by wind-borne spores that can travel more than 1,000 miles."
- "On his way back to Washington form San Clemente today, President Nixon stopped in Denver to talk to a meeting of law enforcement officials."

IL: Inference sentences/labeled

Inferences are not capable of verification, at least not at the time they are made. As Hayakawa defines them, they are "statements about the unknown made on the basis of the known." Some of the characteristics of inferences are:

- They rely on personal or subjective opinions, conclusions, beliefs, feelings
- They attempt to interpret events
- They talk about the implications of an event
- They attempt to make generalizations
- They attempt to make predictions (This refers to predictions the correspondent attempts to make himself, as opposed to (a) reports of up-coming events which can be verified and (b) predictions attributed to someone else.)
- They attempt to tell what a certain event means
- They attempt to evaluate
- They attempt to say what other people think or feel, as opposed to a report of what other people say they think or feel
- They attempt to explain someone's reasons or motives for doing something

Labeled inferences are a particular kind of inference. When the correspondent uses a labeled inference, he is giving his viewer a tip-off that he is using an inference, that what he is reporting has not been confirmed. For example, when the correspondent says, "It appears…," he is saying parenthetically, "It appears (to me)…" While a number of inference words could be considered tip-off words, only the following common ones will be coded as such in this study:

- appear, appears, appeared, apparently, appearing, apparent
- could
- look, looks, looked, looking
- may, maybe
- might
- perhaps, possible
- probable, probably
- seem, seems, seemed, seemingly
- sound, sounds, sounded, sounding
- think (in the sense of "I (the correspondent) think…"

The following are examples of IL sentences:

- "Dairy farmers appear to be unaffected by the recent increase in fuel prices."
- "Additional cows exposed to the same feed may have entered the human food chain."
- "Other classmates recall Richard Nixon as hard-working, driving, serious and somewhat shy, which he certainly did not seem to be today."
- "Until this week, presidential decisions seemed to be catering to conservatives on the right."
- "Now, in three consecutive days, the White House has concentrated on liberal programs, in what appears to be a concerted effort by the Administration to swing back to the more solid political ground in the middle of the road."

IU: Inferences sentences/unlabeled
The characteristics of inferences described on the top half the previous page also apply here. In fact, all other inferences are placed in this category.

It should be repeated that inferences that are attributed to someone else are considered reports of inferences, and thus, coded as RA. When you come across an inference you should ask yourself, "Who is making this inference, the author or someone else?"

While thousands of words can be inference words, the following frequently-used words are almost always inferences:

- problem (What is a problem to one person my not be to another.)
- long (What is long to one person may not be long to another.)
- short (What is short to one person may not be short to another.)
- big, small, several, huge, few (Same as above.)
- only (A unit of X is simply a unit of x; using the "only" indicates that the speaker thinks it should have been more.)
- warned (when used as said) (when someone makes a statement, he makes a statement; whether that statement is a warning depends on how it is perceived.)
- charged, challenged, attacked, accused (when used as said) (Same as above.)
- about (specific numbers can be verified; "about 100" cannot be verified.)
- traditional (What is traditional to one person may not be to another.)
- routine (What is routine to one person may not be to another.)

The following are examples of IU sentences:

- "He warned producers to lock their gates to visitors." (He said it; whether or not it was a warning can only be an inference.)
- "The Justice Department gave Georgia only fifteen days in which to come up with a desegregation plan for all of its 194 school systems." (The Justice Department gave Georgia fifteen days, not "only fifteen days.")

JAF: Judgment sentence/attributed/favorable to the topic
JUF: Judgment sentence/unattributed/favorable to the topic
JAU: Judgment sentence/attributed/unfavorable to the topic
JUU: Judgment sentence/unattributed/unfavorable to the topic

Judgment sentences, for the purpose of this study, are narrowly defined. As Hayakawa defines them, they are "expressions of the writer's approval or disapproval of the occurrences, person, or objects he is describing." In other words, sentences that indicate approval/disapproval, like/dislike, good/ bad, and so on are classified as judgment sentences. When judgment sentences are found, they are further classified as to direction: favorable or unfavorable toward agriculture.

The attributed/unattributed factor is the same as used with report sentences. When favorable or unfavorable judgment is found, is the correspondent making this judgment himself, or is he merely reporting a judgment that someone else made?

Rule 3: A report of a judgment sentence someone else is making about the topic should be coded as JAF or JAU. Note: This contrasts with the handling of reports of inference sentences; see Rule 1.

Rule 4: If the same sentence can be interpreted as either a favorable or unfavorable judgment sentence it should be coded as an unfavorable judgment sentence. (Note: negative takes precedence or positive.)

Rule 5: If a sentence contains two or more judgments about the topic, only the first negative judgment will be coded. Note: Negative takes precedence over positive.) If the two or more judgments are all positive or all negative, then only the first judgment are all positive or all negative, then only the first judgment in the series will be coded.
Rationale: This type of sentence will be extremely rare and will have no significant effect upon the outcome of the study. The benefit of this rule is that it prevents the possibility of double-coding; each sentence will be placed in only one category.

The following is an example of a JAF sentence:

- "Folks seem fairly confident that we're going to sort this out at some point," said Gregg Doud, chief economist for the NCBA.

The following is an example of a JUF sentence:

- "The NCBA, a trade group for the U.S. beef industry, is trying to draw a distinction between the British outbreak and the discovery of a single U.S. cow with the disease."

The following is an example of a JAU sentence:

- "A Japanese agriculture official said the United State's measures are less effective than Japan's." (If the topic of the story is U.S. agriculture. If the topic of the story was Japanese agriculture, the sentence would be coded a JAF.)

The following is an example of a JUU sentence:

- "The crisis has jolted the $27 billion cattle industry, with more than 30 nations banning U.S. beef."

O: All other sentences

This is simply a catch-all category that includes:

- Incomplete sentences
- Questions
- Sentences which for other reasons do not fit one of the other 8 categories

Tips for Coding "Mixed" or Compound Sentences
The following rules should be used to classify those sentences which are "mixed" sentences:

Rule 6: If a compound sentence contains both an RA and an RU segment, it should be coded as RA

Rule 7: If a sentence contains both statements of fact and inference, it should be coded as an inference sentence.

Rule 8: If a sentence contains both statements of fact and judgment, it should be coded as a judgment sentence.

Rule 9: If a compound sentence contains both an IU and an IL, it should be coded as an IL.

Rule 10: If a sentence contains both an inference and a judgment, or all three types of sentences, it should be coded as a judgment sentence.

Thus, the general principle in handling "mixed" sentences is that they should be placed in the category that is furthest down on the list on page 2 of this document.

Some General Suggestions

- Each sentence must be read in full before you code it. Frequently a sentence would be placed in one category based upon something said in the first part, but a single word, phrase or quote at the end will require its being placed in another category.
- First decide the overall category of the sentence --- report, inference or judgment --- and then decide which sub-category.
- Do not feel that you are giving the writer a "bad mark" when you use IL and IU. Inferences are not bad, in and of themselves. As Hayakawa points out, a good mechanic can listen to an automobile engine running and make very accurate inferences about the internal condition of that engine.

APPENDIX E

Panel of Experts

Cindy Blackwell
Assistant Professor
Agricultural Education, Communications & Leadership
Oklahoma State University

Dwayne Cartmell
Associate Professor
Agricultural Education, Communications & Leadership
Oklahoma State University

Shelly Sitton
Associate Professor
Agricultural Education, Communications & Leadership
Oklahoma State University

APPENDIX F

AGCM 3113 Spring 2008 Class Syllabus

AGCM 3113 ♦ Spring 2008
Writing for Agricultural Publications
Lecture MW 8:30am – 9:20am ♦ AGH 201
Lab T 8:30am – 10:20am ♦ Agricultural Hall 005

Instructor

Dr. Cindy Blackwell
Department of Agricultural Education,
Communications and Leadership
444 Agricultural Hall
405.744.5133 (office)
cindy.blackwell@okstate.edu

Course Information

Desire 2 Learn -- oc.okstate.edu

Prerequisite

Minimum grade of a C in JB 2003 or AGCM 2103 and passing score on the Writing Assessment

Course Objectives

- Understand the basics of news identification and news gathering for various agricultural stakeholder audiences
- Gather and organize information, including interview material, into an appropriate form for various agricultural communication media
- Use style consistent with the medium and that assists the agricultural audience in better understanding the information provided
- Write clear, accurate and engaging copy that would be usable for the targeted agricultural medium

Required Texts

Brooks, B. S., Kennedy, G., Moen, D. R., & Ranly, D. (2005). *News reporting and writing* (8th ed.). Boston, MA: Bedford/St. Martin's.

Associated Press Stylebook and briefing on media law. (2005 or newer). New York: Perseus Publishing.

Academic Calendar Highlights

Refer to the OSU Catalog for an explanation of the University's drop policy.
Important dates for the semester are as follows:

Last day to drop with no grade and no fees charged . . . . . January 14
Last day to drop with an automatic grade of "W" . . . . . April 4
Last day to withdraw from ALL courses with an assigned grade of "W" or "F" . . . . . April 18
Pre-finals week . . . . . April 21-25
Finals week . . . . . April 28-May 2

Professionalism Statement & Attendance

Professionals in the agriculture, science and natural resource industry are guided by specific values and characteristics. Professional characteristics on which you will be judged in this course include punctuality, attendance, collegial attitude (including use of inclusive language) and participation. This course relies extensively on written assignments, discussion and other class interactions; therefore, attendance is crucial to your success. Students will participate in group work, written assignments and in-class discussions about topics on syllabus. If you are ill or an emergency occurs, contact (if possible) the instructor (via e-mail or voice mail) prior to the scheduled class time. Otherwise, your attendance and participation are firm expectations.

If you are absent, it is your responsibility to complete previous material. Missed assignments can be made up if the instructor excuses the absence prior to the missed date. If you will be absent for an official University activity, you may be asked to take the exam or do the assignment prior to your absence. *Attendance points are not earned if you are not in class no matter the reason.*

Academic Integrity Policy
Oklahoma State University is committed to the maintenance of the highest standards of integrity and ethical conduct of its members. This level of ethical behavior and integrity will be maintained in this course. Participating in a behavior that violates academic integrity (e.g., unauthorized collaboration, plagiarism, multiple submissions, cheating on examinations, fabricating information, helping another person cheat, unauthorized advance access to examinations, altering or destroying the work of others, and fraudulently altering academic records) will result in your being sanctioned. Violations may subject you to disciplinary action including the following: receiving a failing grade on an assignment, examination or course, receiving a notation of a violation of academic integrity on your transcript, and being suspended from the University. You have the right to appeal the charge. For a brief overview of the policy you can watch the video or contact the Office of Academic Affairs, 101 Whitehurst, 405-744-5627, academicintegrity.okstate.edu.

As a communications specialist in any area, intellectual property violations can destroy your career. When in doubt about plagiarism, paraphrasing, quoting or collaboration, consult the course instructor.

NOTE: **AGCM 3113 projects may NOT be submitted for credit in another course or vice versa, unless the student obtains prior approval from both course instructors.**

Special Accommodations
According to the Americans with Disabilities Act, each student with a disability is responsible for notifying the University of his/her disability and to request accommodations. If you think you have a qualified disability and need classroom accommodations, contact the office of Student Disability Services, 315 Student Union. Please advise the instructor of your disability as soon as possible, to ensure timely implementation of appropriate accommodations. To receive services, you must submit appropriate documentation and complete an intake process during which the existence of a qualified disability is verified and reasonable accommodations are identified. Contact Student Disability Services to ensure timely implementation of appropriate accommodations at 744-7116.

Grades
Your final grade will be determined by evaluation of the following assignments/exams and based on the grading scale below:

Assignment	Points Possible	Points Received
Attendance, participation and newspaper reading	75	
Chapter Syntheses (10 @ 10 points each)	100	
Major Assignment 1 – interview and transcript	75	
Major Assignment 2 – Single interview/multiple source story	100	
Editing Exercises (2 @ 15 points each)	30	
Major Assignment 3 – Speech/meeting coverage	100	
Major Assignment 4 – Multiple interview/source story	100	
AP Style Quizzes & section Quizzes (6 @ 25 points each)	150	
Lab Assignments (11 @ 20 points each)	220	
Final Exam	50	
Total Points	**1,000**	

A = 920 points and up; B = 820 to 919 points; C = 720 to 819 points; D = 620 to 719 points;
F = 619 points and below
Given the deadline nature of communications, your completed assignments must be submitted by the appropriate deadline or your grade on the assignment will decrease 25 percent per day it is late. Assignments more than three weekdays late will not be accepted. Specific requirements and grading criteria will be given with each assignment. Unless otherwise stated, all papers and assignments are due at the beginning of class on the deadline date.

Course Outline

WEEK 1
January 7
- Introduction to course content, instructor, and classmates
- News from the break

January 9
- What is news?
- *Chapters 1 & 2*
- **Chapter Synthesis due**
- **Bring a newspaper to class**

WEEK 2
January 14
- Story Basics – Inverted Pyramid
- *Chapter 7*
- **Chapter Synthesis due**

January 16
- Writing to be read
- *Chapter 8*
- **Chapter Synthesis due**
- **Bring a newspaper to class**

LAB
- Introduction to the AP stylebook

WEEK 3
January 21
- MLK Day – No class

January 23
- The editing experience
- Learning from others
- **Bring a newspaper to class**

LAB
- Leads

WEEK 4
January 28
- Gathering Information
- *Chapter 5*
- **Chapter Synthesis due**

January 30
- Interviewing
- *Chapter 3*
- **Chapter Synthesis due**
- **AP Style quiz I due**
- **Bring a newspaper to class**

LAB
- Gathering Information

WEEK 5
February 4
- Attribution
- *Chapter 4*
- **Chapter Synthesis due**

February 6
- Interview Practicum
- **MA 1 Interview questions due**
- *AP in class quiz*
- **Bring a news paper to class**

LAB
- What to ask, how to ask, who to ask

WEEK 6
February 11
- Reporting with numbers
- *Chapters 6, 15, and 17*
- **Chapter Synthesis due**

February 13
- What is the Truth?
- **Major Assignment 1 due**
- **Bring a newspaper to class**

LAB
- What the numbers say

WEEK 7
February 18
- Investigative Reporting
- *Chapter 18*
- **Chapter Synthesis due**

February 20
- Beat reporting
- *Chapter 14*
- **Chapter Synthesis due**
- **AP Style quiz 2 due**
- **Bring a newspaper to class**

LAB
- An investigative reporting case study
  Investigative reflection/reaction

WEEK 8
February 25
- Major Assignment 2 peer critique
- **Major Assignment 2 draft due**
- *AP in class quiz*

February 27
- Speeches and meetings
- *Chapter 12*
- **Chapter Synthesis due**
- **Bring a newspaper to class**
- **Major Assignment 2 final version due**

LAB
- Speech coverage

WEEK 9
March 3
- 5:30pm City Commission Meeting
  723 S. Lewis, Stillwater

March 5
- The Feature Story
- *Chapter 9*
- **Chapter Synthesis due**
- **Bring a newspaper to class**

LAB
- Work on Major Assignment 3

WEEK 10
March 10
- Writing for the online reader
- *Chapter 20*
- **Chapter Synthesis due**
- **Major Assign 3 due**

March 12
- Editing – More than grammar and AP Style
- **Bring a newspaper to class**

LAB
- Comparing online and print media

WEEK 11
March 24
- Media Law
- *Chapter 22 and AP Briefing on Media Law*
- **Chapter Synthesis due**
- **Editing exercise 1 due**

March 26
- Media Ethics
- *Chapter 23*
- **Chapter Synthesis due**
- **Bring a newspaper to class**

LAB
- Law and Ethical dilemmas

WEEK 12
March 31
- Writing for Radio and Television
- *Chapter 19*
- **Chapter Synthesis due**
- **AP Style quiz 3 due**

April 2
- John Peter Zenger and the Rise of a Free Press
- Journalistic Responsibility
- **Bring a newspaper to class**
- *AP in class quiz*

LAB
- Comparing broadcast and print

WEEK 13
April 7
- The television broadcast experience – Tour Oklahoma Horizons

April 9
- The radio broadcast experience – Tour KOSU

LAB
- Work on MA 4

WEEK 14
April 14
- Writing for public relations
- *Chapters 11 & 21*
- **Chapter Synthesis due**
- **Editing exercise 2 due**

April 16
- Crime and Disaster stories
- *Chapter 13*
- **Chapter Synthesis due**
- **Bring a newspaper to class**

LAB
- The news release

WEEK 15
April 21
- The Agricultural Disaster – your role

April 23
- Class Wrap-up and evaluation
- **Major Assignment 4 due to 444 Ag Hall by 5pm**

LAB
- Major Assignment 4 – on your own

FINALS WEEK
- **Final Exam** – Per university schedule

APPENDIX G

AGCM 3113 Major Assignment 2 Instructions

AGCM 3113
Writing for Agricultural Publications
Major Assignment 2
DUE: 6 October 2008 at the start of the City Commission meeting

Using the interview you conducted for Major Assignment One, you are to now turn the interview and information you gathered into a news story. In order to provide accurate and balanced reporting, **you will need to conduct one additional interview** and *use quotes from both interviews* in your story. The approximate length should be *three pages*, typed, double spaced. Remember to use a strong lead, good AP style, direct quotes that add interest, and judicious paraphrasing with appropriate attribution. **Write from a newsworthy standpoint.** You may find you need to gather additional information or quotations, so plan accordingly.

Please let me know if you need assistance with this assignment.

Lead	20 points
Newsworthy frame	20 points
Grammar/Writing Style	20 points
Attribution	20 points
AP Style	20 points
Total	**100 points**

APPENDIX H

AGCM 3113 Major Assignment 4 Instructions

AGCM 3113
Writing for Agricultural Publications
Major Assignment 4

Key Issues
Assignment due Wednesday, 3 December 2008 by 5pm to 444 AGH
Please do not email assignments.
Please note that NO late assignments will be accepted.

Write a story on a topic of your choice (related to agriculture) which includes material (quotes and background information) from at least *five sources*. Three of the sources must be individuals who you *personally have interviewed* (phone or in person, but not via email); the other two may be printed material, information from the Internet (good information) or another source. Do NOT interview a relative or current supervisor.

The print media story should be written for an agricultural publication of your choice (specify in the header of your paper). The story should be at least four pages double spaced. This story should include direct quotes from the three "people" sources. The other sources may be quoted in the story, or may be used as background information only. Use appropriate attribution, news format and Associated Press style.

Turn in a source sheet with your story that provides sufficient information to locate and/or contact the sources you use. *Also, you must run your story through Turnitin.com and include the report provided by Turnitin.com with your paper. Note that Turnitin.com can take up to 24 hours to process your paper.*

Grading:

Lead	25 points
Newsworthy Frame	20 points
Grammar/Writing Style	25 points
Attribution	25 points
AP Style	25 points
Source sheet	5 points
Total	**125 points**

APPENDIX I

Survey 1

AGCM 3113: WRITING FOR AGRICULTURAL PUBLICATIONS SURVEY 1

Directions: Please mark or write down the answers that best describe you. There are no right or wrong answers. Only your personal opinions matter. Your answers are confidential. The survey will take you approximately 10 minutes.

1. Define "prominence" as it relates to journalism.

2. Define "timeliness" as it relates to journalism.

3. Define "newsworthy information."

4. Define "objective writing."

5. Define "judgmental writing."

6. When you write, do you feel your writing is:
   - ☐ More objective than judgmental
   - ☐ Equally judgmental and objective
   - ☐ More judgmental than objective

7. If you use judgment statements when you write, are they generally:
   - ☐ More of the judgment statements are favorable toward the topic
   - ☐ There are an equal amount of judgment statements favorable and unfavorable toward the topic
   - ☐ More of the judgment statements are unfavorable toward the topic

8. When you feel passionately about a topic, does that passion impact your writing about that topic? Why or why not? How does it affect it?

Thank you for your participation!

APPENDIX J

Script for Administering Survey 1

SCRIPT FOR ADMINISTERING SURVEY 1

Good morning! You are being asked to take part in a research study. This study will help communications educators determine best practices for designing and planning curriculum for agricultural communications students. As an agricultural communications student, your input and participation in this survey is highly valued. Your participation is voluntary, though greatly appreciated.

If you choose to participate, please read and sign the informed consent document and complete the survey you have been given. The survey includes 10 questions. Please mark or write down the answers that best describe you. There are no right or wrong answers. Only your personal opinions matter. Your answers are confidential. Although the surveys are coded, your identity will not be disclosed during any portion of this study.

The survey will take you approximately 10 minutes. You can stop at any time without penalty, and you do not have to answer any questions you do not want to answer. There are no known risks for participating in this study, and there is no compensation or benefits. Please return the consent form and completed survey to me when you are finished.

If you have any questions, please call Ruth Bobbitt at 405-612-7639 or send an e-mail to ruth.bobbitt@okstate.edu. You also can call her adviser, Shelly Peper Sitton at (405) 744-3690 or send an e-mail to shelly.sitton@okstate.edu.

Thank you for your participation.

APPENDIX K

Informed Consent Document

INFORMED CONSENT FORM

Title of the Study: The effects of exposing agricultural communications students to the Hayakawa-Lowry news bias categories

You are being asked to take part in a research study. To join the study is voluntary. You may refuse to join, or you may withdraw your consent to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future.

Details about this study are discussed below. It is important you understand this information so you can make an informed choice about being in this research study.

You will be given a copy of this consent form. You should ask the researchers, or staff members who may assist them, any questions you have about this study at any time.

Purpose:
The purpose of this research study is to examine agricultural communications students' writing to determine best practices for planning and implementing agricultural communications curriculum.

Procedures
You are being asked to be in the study because of your enrollment in AGCM 3113: Writing for Agricultural Publications. If you choose to participate:

- You will be asked to complete two short surveys – one at the beginning of the semester and one at the completion of the semester.
- In addition, several of your writing assignments for this class will be collected, and three coders will analyze the content of those assignment.
- This study and its subsequent results will in no way affect your grade or ability to participate in AGCM 3113: Writing for Agricultural Publications.
- Student papers and surveys will be assigned code numbers randomly for confidentiality purposes, and only the researcher and her adviser will know the identity of the individuals and their assigned code numbers.

Risks of Participation
There are no known risks associated with this project, which are greater than those ordinarily encountered in daily life.

Benefits
Research is designed to benefit society by gaining new knowledge. You may benefit by participating in this study by having the opportunity to use the concepts addressed in this class to enhance your writing. In addition, this study will help communications educators determine best practices for designing and planning curriculum for agricultural communications students.

Confidentiality
Ruth Bobbitt will store all electronic data on her personal computer, which is password protected. The investigator and her adviser will keep all archived documents (surveys and student papers) pertaining to the study in a locked storage cabinet for five years. After all phases of the study are complete and journal articles written, the data will be shredded, but no later than May 15, 2013. Only the codes will be present in written documents to protect participants' identities.

For this study, student papers and surveys will be assigned code numbers randomly for confidentiality purposes, and only the researcher and her adviser will know the identity of the individuals and their assigned code numbers. Three coders will code the raw data from the student papers after code numbers have been assigned.

Compensation
No compensation is offered for participating in this study.

Questions:
You have the right to ask, and have answered, any questions you may have about this research. If you have questions, or concerns, you should contact the researchers listed on the first page of this form. All research on human volunteers is reviewed by a committee that works to protect your rights and welfare. If you have questions or concerns about your rights as a research subject you may contact, anonymously if you wish, the Institutional Review Board at 405-744-1676 or irb@okstate.edu.

Contacts

Investigator:
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Faculty Adviser:
Shelly Sitton
Department of Agricultural Education, Communications and Leadership
405-744-3690
shelly.sitton@okstate.edu

Participant's Agreement:
I have read and fully understand the information provided above. I have asked all the questions I have at this time. I voluntarily agree to participate in this research study. A copy of this form has been given to me.

_____ _____
Signature of Research Participant Date

_____
Printed Name of Research Participant

I certify that I have personally explained this document before requesting the participant to sign it.

_____ _____
Signature of Researcher Date

Okla. State Univ. IRB
Approved 1/7/08
Expires 1/6/09
IRB # HE0748

APPENDIX L

Survey 2

AGCM 3113: WRITING FOR AGRICULTURAL PUBLICATIONS SURVEY 2

Directions: Please mark or write down the answers that best describe you. There are no right or wrong answers. Only your personal opinions matter. Your answers are confidential. The survey will take you approximately 10 minutes.

9. Define "prominence" as it relates to journalism.

10. Define "timeliness" as it relates to journalism.

11. Define "newsworthy information."

12. Define "objective writing."

13. Define "judgmental writing."

14. When you write, do you feel your writing is:
    - ☐ More objective than judgmental
    - ☐ Equally judgmental and objective
    - ☐ More judgmental than objective

15. If you use judgment statements when you write, are they generally:
    - ☐ More of the judgment statements are favorable toward the topic
    - ☐ There are an equal amount of judgment statements favorable and unfavorable toward the topic
    - ☐ More of the judgment statements are unfavorable toward the topic

16. When you feel passionately about a topic, does that passion impact your writing about that topic? Why or why not? How does it affect it?

Thank you for your participation!

APPENDIX M

Script for Administering Survey 2

SCRIPT FOR ADMINISTERING SURVEY 2

Good morning! This is the second survey in a research study about agricultural communications curriculum. Once again, your participation is voluntary, though greatly appreciated.

The survey includes 8 questions. Please mark or write down the answers that best describe you. There are no right or wrong answers. Only your personal opinions matter. Your answers are confidential. Although the surveys are coded, your identity will not be disclosed during any portion of this study.

The survey will take you approximately 10 minutes. You can stop at any time without penalty, and you do not have to answer any questions you do not want to answer. There are no known risks for participating in this study, and there is no compensation or benefits. Please return the consent form and completed survey to me when you are finished.

If you have any questions, please call Ruth Bobbitt at 405-612-7639 or send an e-mail to ruth.bobbitt@okstate.edu. You also can call her adviser, Shelly Peper Sitton at (405) 744-3690 or send an e-mail to shelly.sitton@okstate.edu.

Thank you for your participation.

VITA

Ruth Irene Bobbitt

Candidate for the Degree of

Master of Science

Thesis: EXPOSING AGRICULTURAL COMMUNICATIONS STUDENTS TO THE HAYAKAWA-LOWRY NEWS BIAS CATEGORIES: A DESCRIPTIVE STUDY

Major Field: Agricultural Communications

Biographical:

Personal Data: Born January 15, 1985 in Enid, Oklahoma. Daughter of Mike and Cindy Bobbitt of Lamont, Oklahoma. Sister of Rachel Bobbitt of Lubbock, Texas.

Education: Earned a Bachelor of Science in Agricultural Communications at Oklahoma State University, Stillwater, Oklahoma in December 2006. Completed the requirements for the Master of Science in Agricultural Communications at Oklahoma State University, Stillwater, Oklahoma in December 2008.

Experience: Communications Specialist, Oklahoma State University Spears School of Business, March 2008-present

Name: Ruth I. Bobbitt Date of Degree: December, 2008

Institution: Oklahoma State University Location: Stillwater, Oklahoma

Title of Study: EXPOSING AGRICULTURAL COMMUNICATIONS STUDENTS TO THE HAYAKAWA-LOWRY NEWS BIAS CATEGORIES: A DESCRIPTIVE STUDY

Pages in Study: 148 Candidate for the Degree of Master of Science

Major Field: Agricultural Communications

Scope and Method of Study: This study employed the Hayakawa-Lowry content analysis methodology (Lowry, 1985) and a researcher-designed survey instrument to answer the eight research questions presented in the study. The population for this study consisted of agricultural communications students enrolled in AGCM 3113: Writing for Agricultural Publications during the spring 2008 semester at Oklahoma State University ($N = 17$). The study was designed to collect census data from the population; thus, no sampling was required. Ten students chose to participate in the study. Therefore, the target population was $N = 10$.

Findings and Conclusions: The 10 students participating in the study did not become more objective writers after attending a lecture and receiving a handout about the Hayakawa-Lowry news bias categories. However, participants used a variety of sentence types when writing news articles, and the news writing of students participating in the study fulfilled the "objectivity" standard of the social responsibility theory of the press because, overall, participants' news writing assignments were more objective than judgmental. When participants used judgment statements, they tended to write from a more favorable than unfavorable standpoint. After the students attended a lecture and received a handout about the Hayakawa-Lowry news bias categories, the students' news writing became significantly more balanced. Student perceptions of the objectivity level and their use of judgment statements did not change significantly. Perceptions of their use of judgment statements matched their use of judgment statements as measured by the Hayakawa-Lowry methodology. Before students attended a lecture and received a handout about the Hayakawa-Lowry news bias categories, student perceptions of the objectivity level of their news writing did not match the objectivity level of their writing as measured by the Hayakawa-Lowry methodology. The objectivity level of their writing was significantly lower than student perceptions of the objectivity level of their writing. However, after the students attended a lecture and received a handout about the Hayakawa-Lowry news bias categories, student perceptions of the objectivity level of their news writing did match the objectivity level of their writing.

ADVISER'S APPROVAL: Shelly Sitton