

MEASURING MEDIA LITERACY
AMONG COLLEGIATE JOURNALISM STUDENTS

By

JORDANA KATHLEEN BURSON

Master of Science in Mass Communication

Oklahoma State University

Stillwater, Oklahoma

2010

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
MASTER OF SCIENCE
July, 2010

MEASURING MEDIA LITERACY
AMONG COLLEGIATE JOURNALISM STUDENTS

Thesis Approved:

Dr. John McGuire

Thesis Adviser

Dr. Stan Ketterer

Dr. Bobbikay Lewis

Dr. A. Gordon Emslie

Dean of the Graduate College

ACKNOWLEDGMENTS

There are many people to whom I'd like to extend my sincere gratitude. The faculty and staff of the journalism and broadcasting department at Oklahoma State University have been inspirational and encouraging throughout this entire process. I wish to specifically thank Dr. John McGuire, my thesis advisor, for the countless hours spent proofing this paper, as well as his kind words of advice and encouragement. I have no doubt that this study has been made better through his mentorship. I would also like to extend many thanks to Dr. Stan Ketterer and Dr. Bobbi Kay Lewis for serving on my thesis committee. Dr. Ketterer's statistical expertise and Dr. Lewis's experience in the field of media literacy were instrumental throughout the thesis process.

My family has also played a different, but equally important role throughout this journey. To my husband, Tanner, I will forever be indebted for his patience and understanding. Tanner worked hard to support us while I went back to school. To my grandparents, Jack and Betty Carson, I owe my entire education. They helped make my dream of earning a Master's degree a reality. This study is dedicated to them.

I was also lucky to have many cheerleaders along the way: Mike Sowell, Ray Murray, Sandy Jay, Dr. Derina Holtzhausen, Jack Hodgson, Dr. Jerry Burson, my parents, my fellow classmates, and the many undergraduate students who participated in the study. Thank you all very much.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION	1
II. REVIEW OF LITERATURE.....	6
Characteristics of Media Literacy	6
Definitions and Roles	6
Typologies of Media Literacy	9
Approaches to Media Literacy	15
Ideological Analysis	15
Production Elements Analysis.....	16
Autobiographical, Nonverbal, and Mythic Analysis.....	17
Content Literacy	18
Grammar Literacy	19
Medium Literacy	19
Media Literacy Education	22
Theoretical Framework	23
Cognitive Theory of Media Literacy.....	23
Social Construction Theory.....	27
Media Literacy Studies.....	27
Media Education Assessment.....	36
Research Questions and Hypotheses.....	37
III. METHODOLOGY	40
Subjects	40
Consent Form	42
Survey Instrument and Measures	43
Media's Impact.....	44
The Media System.....	45
Information Processing Strategies.....	45
Social Construction	45
Content Meanings.....	46
Media's First Amendment Role	47
Data Analysis	47
Reliability and Validity	48

Chapter	Page
IV. RESULTS	49
Sample	49
Subjects	49
Demographics.....	49
Data Screening	51
Reliability Analysis	51
Media Consumption and Engagement	53
Media Literacy Courses.....	53
Media Consumption	55
Engagement in Media Sources	55
Media Literacy Survey	58
Media System	60
Information Processing Strategies.....	62
Social Construction	64
Content Meanings.....	66
First Amendment.....	67
V. DISCUSSION AND IMPLICATION	70
Discussion	71
Media Consumption and Engagement	71
Media Literacy Survey	72
Media System	73
Information Processing Strategies.....	74
Social Construction	76
Content Meanings.....	76
First Amendment.....	77
Implications	78
Limitations.....	82
Directions for Future Research.....	83
REFERENCES	85
APPENDIX A	90
APPENDIX B.....	91
APPENDIX C.....	92
APPENDIX D	93

LIST OF TABLES

Table	Page
2.1 Typologies and Corresponding Functions of a Socially Responsible Press	14
2.2 The Seven Primary Criterion of a Media Literate Individual	21
2.3 Comparison of Potter's Foundational Knowledge Structures and the Seven Criterion of a Media Literate Individual	25
2.4 Primack and Hobbs' Media Literacy Theoretical Framework	32
4.1 Frequency Table of Students by Major	50
4.2 Breakdown of Majors within Collegiate Journalism Department	50
4.3 Frequency Table of Students by Gender	50
4.4 Frequency Table of Students by Age	50
4.5 Frequency Table of Students by Classification	52
4.6 T-Test Comparing Major by Courses Discussing Media Literacy	54
4.7 Table of Means for Media Consumption and Engagement	57
4.8 T-Test Comparing Major by Media Literacy Survey Score	59
4.9 Descriptive Statistics for Sequence and Media Literacy Score	61
4.10 One-Way ANOVA for Media Literacy Score by Program Sequence	61
4.11 Scheffe Multiple Comparison Test for Media Literacy Score by Program Sequence	61
4.12 Cross Tabulation of Definition of Media Literacy and Major	68

CHAPTER I

INTRODUCTION

The Accrediting Council on Education in Journalism and Mass Communication has recognized 109 collegiate Journalism and Mass Communications programs throughout the United States (ACEJMC Accredited Programs 2007-2008). The council has identified these schools as having rigorous standards in journalism and mass communication education (ACEJMC Accredited Programs 2007-2008). In evaluating each program, the council assessed instruction based on nine accrediting standards. These standards are implemented to ensure competency and ability upon graduation from these journalism programs.

However, many industry professionals have been critical of recent journalism graduates. Some educators have questioned whether journalism students are being adequately prepared to analyze the media they will be helping to create in a world with (a) 24-hour news cycles, (b) audience fragmentation, (c) increasing competition from other mediums, and (d) increasing corporate financial goals that conflict with the mission of journalism (McCall, 2007; Schneider, 2007).

This study will focus on collegiate journalism students and their level of media literacy awareness. The research will examine (a) journalism students' knowledge level of media literacy and (b) contrast journalism students' knowledge level of media literacy with non-journalism students.

At the 2007 World Journalism Education Congress (WJEC) in Singapore, members of 28 international journalism organizations gathered to establish the Declaration of Principles of Journalism Education (Claussen, 2007). The declaration stated, “Journalism should serve the public in many important ways, but it can only do so if its practitioners have mastered an increasingly complex body of knowledge and specialized skills” (WJEC, 2007, p. 1). The declaration listed 11 principles on which to strengthen journalism education during this period of changing media landscape. Of these principles, two addressed media literacy as a standard in journalism education (WJEC, 2007). The Aspen Institute’s 1992 National Leadership Conference on Media Literacy defined media literacy as “the ability of a citizen to access, analyze, and produce information for specific outcomes” (Firestone, 1992, p. 1). Aufderheide (2001) expanded on this definition by adding that “A media literate person – and everyone should have the opportunity to become one – can decode, evaluate, analyze, and produce both print and electronic media” (p. 79).

Despite a resurgence of media literacy as an important student-learning outcome, many researchers remain critical of the lack of importance placed on such skills (Kubey & Baker, 1999; Mihailidis, 2006; Christ, 2004). Kubey and Baker (1999) have argued that the United States is behind every English-speaking country in the world in delivery of media literacy education. Mihailidis stated that “to show the relevance of media literacy to U.S. curricular builders, the development of student-learning outcomes will require programs to not only define media literacy, but also develop standards and assessment that can be used to measure media literacy” (2006, p. 416). The development of these standards must begin in media-related courses across the country.

Some Journalism and Mass Communication programs attempt to teach media literacy skills through introductory media or literacy classes. As of 2002, only 61 universities in the United States offered media literacy curriculum (Silverblatt et al., 2002). Howard Schneider, dean of the School of Journalism at Stony Brook University, described his struggle to teach journalism students to “distinguish between news and propaganda, verification and assertion, evidence and inference, bias and fairness, and media bias and audience bias” through a news literacy course he developed (2007, p. 67). Schneider’s course was successful enough to earn a \$1.7 million grant to teach the course to 10,000 students and measure the effects of the course over time. The grant also helped establish a national Center for News Literacy at Stony Brook, which is dedicated to educating students on how to judge the credibility and reliability of news.

Although news literacy focuses on news media specifically, the principles of news literacy and media literacy are similar. Both require individuals to think critically about media messages while sorting out the most important information. Media literacy includes a broader spectrum of media, such as advertisements, Hollywood films, and news programs. Nevertheless, the Center for News Literacy at Stony Brook may provide a blueprint for media literacy education in college journalism departments.

One justification for this study is that journalism students should have a thorough understanding of the media industry upon graduation. As future leaders in the field, graduates will have the potential to impact public discourse. Students who become publishers, editors, general managers, news directors or producers will shape the media content that the public consumes. This privilege comes with a responsibility to understand the content’s impact on the audience. Milhailidis (2006) also noted that

media literacy education could make better journalists: “When journalists attain insight as to how texts are interpreted, used, and enjoyed by audiences, they may gain proficiency in storytelling from the production side,” (p. 418). Journalists are principal storytellers in our society, and they must be fully trained to handle the responsibility of that position.

A second justification is that effective media literacy education can impact our democracy. As young journalists create media, they are directly and indirectly shaping the public agenda. At the World Journalism Educators Congress, it was agreed that one objective of journalism education should be to instruct students “to promote media literacy among the public,” (2007, p. 1). At their best, journalists can empower citizens to take action within their communities. At their worst, journalists can mislead or distract the public with non-issues or false information.

A third justification is that media sources are used increasingly in classroom settings. Researchers have studied the growth of television, film, and Internet use in the classroom (Hayes, Taub, & Robinson III, 2003). Journalists and educators alike need to be proficient in checking the accuracy and relevancy of the films, recordings, and news clips they use for information. Journalism students must also be able to assess and discern between relevant facts and informed opinion.

A fourth justification is that this study could help guide future efforts to provide media literacy education. An assessment of the media literacy abilities of journalism students could be a valuable resource to educators as they determine where their students’ strengths and weaknesses lie.

The remaining chapters in this research study will consist of a review of literature, the methodological framework used in this study, findings and discussion, and

conclusions. Chapter Two identifies the characteristics of media literacy as well as media literacy education assessment. Chapter Two will also discuss the social construction of reality theory and Potter's theory of media literacy. Chapter Three details the sampling methods, participant recruitment, and survey instrument used in this study of media literacy awareness. Chapter Four details the study's findings and discusses those results in detail. Chapter Five discusses the conclusions and implications based on the study's findings, and includes discussion of the limitations of the study and suggestions for future research.

CHAPTER II

REVIEW OF LITERATURE

Two primary areas of research will be examined in this section, including (a) characteristics of media literacy and (b) media literacy education. Within the discussion of media literacy's characteristics, definitions, roles, typologies and approaches most applicable to the research will be examined. Available research about media literacy education will also be discussed along with applicable theories and media literacy studies.

Characteristics of Media Literacy

Mass communication scholars have published numerous studies and essays about media literacy. Potter has even authored a theory of media literacy and a model for default information processing that described what happens when people have little awareness of media effects, the process of influence, or themselves (1998). Potter argued that without an effective understanding of the media, people are more likely to develop misunderstandings, misperceptions and fail to challenge the meaning of media messages. The following section examines elements of media literacy and media literacy programs through Potter's theory.

Definitions & Roles

In 1992, a group of media scholars interested in the emerging media literacy movement met to collaborate on a common vision and framework of media literacy from

which all groups interested in furthering media literacy could build. The group, sponsored by The Aspen Institute, emphasized that a media literate person should be able to access, analyze, and produce information for a certain purpose (Firestone, 1992). The director of the Aspen Institute summed up the group's purpose when he wrote that by agreeing upon a common definition, "each group could demonstrate its own niche and role in achieving the common objectives," (Firestone, 1992, p. 1). Since that time, several others have attempted to further define what it means to be media literate.

Silverblatt (1995) built upon the Aspen Institute's definition by emphasizing five elements. The first element is that a media literate person is aware of the impact media has on the individual and society. This would include being aware of the potential impact of violent programming on children. Second, a media literate person must have an understanding of the mass communication process, from production to interpretation. This would include an understanding of the steps advertisers take to get their messages broadcast on television or radio. Third, a media literate person should develop strategies for analyzing and discussing media messages. For example, a media literate person would be capable of perceiving a bias, frame, or angle in a news story and interpret that story according to his or her own beliefs. The fourth element is awareness of media content as a text through which one gains insight to a culture. A media literate person would be able to recognize which elements of a media message are meant for his or her own subculture while also recognizing elements that address other cultures as well. For example, a soccer fan might like watching an international soccer match broadcast in English because it is a very significant sporting event in other countries, even if it isn't the fan's favorite team. Finally, media literacy should result in enhanced enjoyment and

appreciation of media content. By developing media literacy skills, Silverblatt posited a person will be able to sort through messages for content and quality, allowing him or her to have more appreciation of the qualities he or she looks for in a program (1995).

Some researchers have attempted to limit the relatively broad Aspen definition to non-print media. Aufderheide (2001) called media literacy “the movement to expand notions of literacy to include the powerful post-print media that dominate our informational landscape, helps people understand, produce and negotiate meanings in a culture made up of powerful images, words, and sounds” (p. 79). In attempting to narrow the scope of media literacy however, Aufderheide’s definition ignored important media messages like advertisements and hard news on the basis of the medium in which it was delivered. The medium also can become part of the message in some cases, and we cannot assume that media literacy does not apply to the print medium.

Another aspect of media literacy is its role in the socialization process. Using the social construction of reality theory, several researchers have noted that media literacy education is most commonly associated with children (Potter, 1998; Dennis, 2004). Dennis (2004) stated that media literacy is part of the socialization of the young into a largely adult media environment. But Dennis also warned that the complexity of the American media system is too great to discount the media literacy needs of adults as well. In his default model of information processing, Potter (2004) described how people are conditioned to accept habitual patterns of exposure and the obvious surface meaning of media messages because it takes the least mental effort. One major problem with this default way of thinking is that it allows the media to set and shape expectations. Children aren’t the only age group susceptible to this pattern, so it must be remembered that media

literacy, like socialization, is an ongoing process.

Silverblatt's 1995 definition is perhaps the most helpful and relevant to the research at hand because it provides further explanation and strategies for accessing, analyzing, and producing information. Since those activities are at the very core of a future journalist's job, it should be expected that journalists are uniquely skilled in this area and would fit Silverblatt's description of a media literate person. Dennis' (2004) and Potter's (2004) ideas of media literacy as an ongoing process also suit a definition of media literacy for journalism students. If journalism in the United States is to continue to serve a social responsibility function, journalists should be wary of falling into the default model of information processing.

Typologies of Media Literacy

Potter (1998) found that media literacy means greater control over media messages for the consumer because he or she can place a media message inside the context of a knowledge structure and select the meaning that is most useful. Potter also offered some fundamental ideas that furthered the definition of media literacy. First, media literacy should be viewed as a continuous scale rather than a categorical condition. Rather than determining whether a person is or is not media literate, the continuous scale allows for a determination of media literacy to some degree. By viewing media literacy as a scale, it is easier to see it as an on-going process. Second, media literacy needs to be developed as we reach higher levels of mental maturity, as one will be able to perceive more in media messages. Like Silverblatt, Potter also believed the purpose of media literacy should be to give people more control over interpreting a media text.

From his research, Potter identified four dimensions of media literacy: (a)

cognitive, (b) emotional, (c) aesthetic, and (d) moral (1998). The *cognitive dimension* of media literacy refers to developing mental processes and critical thinking skills.

According to Potter (1998), this can be as simple as understanding a set of symbols that make up a language system or as complex as understanding the framing of a news story to achieve a certain reaction. For example, a cognitive approach to media literacy might look at a person's knowledge of stocks and financial matters after watching an investment program on television. The *emotional dimension* of media literacy has to do with feeling or emotional reaction to media messages. A media literate person using the emotional approach is able to recognize symbols that represent complex emotions and experience those emotions the message producer is attempting to create. A person who is emotionally media literate would recognize that the close-up shot of a puppy on a Humane Society commercial is for the purpose of encouraging one to adopt a pet or donate money to the organization. The *aesthetic dimension* has to do with appreciating media content from an artistic point of view. This can include the ability to understand the meaning behind a message creator's unique artistic style. In the aesthetic dimension, a person might be tested on their ability to recognize derivations or influences of a particular film director's work. Finally, Potter's *moral dimension* of media literacy refers to a person's ability to understand underlying values and ideals within a media text. This can include the ability of a person to recognize conservative or liberal values or bias in a news program (1998).

Although it could be said that each dimension is equally important, this study of the media literacy awareness of collegiate journalism students will focus on the cognitive dimension of media literacy. The cognitive dimension relies heavily on building and

maintaining knowledge structures to provide context for meaning and understanding. Knowledge structures are also a key component of the social construction of reality theory, and of many assessments of media literacy by mass communication educators. Young journalists are expected to build knowledge structures for gathering and dispersing information to audiences in a variety of ways. Finally, according to Potter (1998), the cognitive dimension of media literacy directly relates to mental processes, and from a media literacy perspective, the more developed a person's mental processes are, the more media literate the person becomes.

While Potter emphasized the development of media literacy as a continual process, Aufderheide emphasized media literacy's ultimate goal. Aufderheide wrote "The fundamental objective of media literacy is critical autonomy in relationship to all media," (2001, p. 79). Potter's theory would likely agree that thinking for oneself is a fundamental key of media literacy. However, Aufderheide's *critical autonomy* implies an independence from media that is not practical or reasonable. If a media message's purpose is solely to entertain, analyzing the text for more meaning than is actually present becomes impractical. Further, some media education researchers have argued that an individual's experiences are an important factor in media literacy education (Brown, 1991; Sholle & Denski, 1995). The ability to determine the degree to which meaning should be derived from a media text is perhaps a more useful quality than total independence.

In the United States, an important distinction is made in the law between political and commercial speech. In addition to Potter's dimensions of media literacy, Aufderheide has suggested civic and consumer competence to the list of skills a media

literate person should have (2001). *Civic competence* is a person's ability to learn or understand principles of government through media channels. For example, such a person would be able to understand the meanings of election year polling results.

Consumer competence is a person's ability to recognize advertising methods and appeals within various media channels. A competent consumer would be able to recognize a misleading advertisement or why certain types of commercials are run at midnight and not at noon.

Dennis (2004) argued that a special designation for the First Amendment within media literacy competencies should be made as well. His argument may indeed be well-founded: A January 2006 poll of 1,000 adults conducted by the McCormick Tribune Freedom Museum found that only .1% of respondents could name all five freedoms guaranteed in the First Amendment (Conn, 2006). While it could be argued this role would fall under Aufderheide's civic competency skills of media literacy development, there is a need to appreciate the special role of media within society as understood and protected by the First Amendment (Dennis, 2004).

Although civic and consumer competence are clearly cognitive functions, the unique roles political and commercial speech play in American media and the importance placed on them in a socially responsible press warrant such special distinction. In her argument for further development of media literacy education programs, Aufderheide cited the social construction of reality function of the media as a central reason. As media messages are constructed with political, commercial, and ideological implications using symbols unique to each medium, the message receiver must be trained to derive those meanings (Aufderheide, 2001). When the message receiver is a future journalist,

there is no doubt that developing knowledge structures for civic and consumer competence is a necessity.

Potter's and Aufderheide's media literacy typologies are reminiscent of the six functions of a socially responsible press, as outlined in Table 2.1 (see next page) by Siebert, Peterson and Schramm (1963, p. 74). If these six functions are the goals of a socially responsible press, Potter's and Aufderheide's typologies are tools and skills by which the media literate person can measure the press's success in achieving those goals. However, as Siebert, Peterson and Schramm (1966) point out, the social responsibility theory holds the position that the press can always do its job better. Just as creating and maintaining a socially responsible press is an ongoing process, so too is creating and maintaining media literacy. In fact, it seems hard to imagine one process without the other.

The typologies mentioned above are particularly important for future journalists to understand. Journalism students need to develop a cognitive dimension of media literacy in order to report fairly and accurately. They will need the emotional capacity to recognize when they are being manipulated to feel a certain way. They should be able to appreciate the aesthetic value of works they might be asked to review, and recognize the underlying morals and values that embody those works as well as their own. Journalism students in the U.S. are taught to practice social responsibility in their work, and in so doing they should seek to advance the public's knowledge about its government. They should recognize the role business plays in creating media content and news. And, perhaps most importantly, they should be aware of and seek to protect the constitutional

Table 2.1

Typologies and Corresponding Functions of a Socially Responsible Press

Typology	Function
Civic Competence	Servicing the political system by providing information, discussion, and debate
Cognitive Competence	Enlightening the public so as to make it capable of self-government
Moral Competence	Safeguarding the rights of the individual by serving as a watchdog against government
Consumer Competence	Servicing the economic system, primarily by bringing together the buyers and sellers of goods and services through advertising
Emotional Competence	Providing entertainment
Aesthetic Competence	Maintaining its own financial self-sufficiency so as to be free from the pressures of special interests

guarantees of the First Amendment.

Approaches to Media Literacy

Given the global nature and complexity of mass media today, there are several approaches to media literacy. Silverblatt, Ferry, and Finan (1999) identified and discussed five major approaches a media literate person can take to analyze media content for access and understanding. They are (a) ideological analysis, (b) production elements analysis, (c) autobiographical analysis, (d) nonverbal communication analysis, and (e) mythic analysis. Of these five approaches, ideological analysis and production elements analysis are the more salient approaches for a media literate journalism student.

Ideological analysis. Ideological analysis places more importance on the cultural and political meaning of media texts. Such analysis of media texts provides a way to identify the texts' prevailing ideology, the impact of ideology on content, and skepticism of the media's representations of culture (Silverblatt, Ferry, & Finan, 1999). For example, an ideological analysis can examine cultural or religious values underlying articles or news reports. This approach to analyzing media content is closely related to the meaning theory of mass communication and social construction theory because it uses the media text to obtain information about a culture. In journalism, it is important to be able to interpret texts within a social or political context. If journalists misinterpret texts they are reporting from, they could potentially mislead or misinform their audiences. This basic principle of interpretation and understanding is at the center of media literacy discussion.

Several researchers have utilized the ideological analysis approach for examining media literacy. Gainer's (2010) qualitative study followed a group of middle school

students enrolled in an after-school critical media literacy program. The program specifically focused on representations of urban youth and schooling in the media. Gainer showed excerpts of Hollywood feature films to the students, and then led a focus group to discuss the way classrooms were depicted in the films. Students were able to identify key stereotypes within the film, as well as express the disconnect between the way Hollywood represented the classroom and their own experiences. Gainer found that the middle school students were able to critically decode mainstream media texts and engage in high-level discussions about those texts (2010, p. 369.) In his conclusion, Gainer noted that the young people drew on their cultural resources and life experiences to socially construct meaning around multimodal media texts:

In the process of learning about texts as ideological and social constructions, students can take power to coconstruct their own identities through alternative representations – counternarratives that talk back to oppressive myths of dominant discourse. In classrooms that make such social spaces for students’s critical narratives, students learn firsthand about active civic engagement necessary for participatory democracy (2010, p. 372).

Gainer’s study also shows how closely related a ideological analysis approach is to the other media literacy approaches. Clearly, the ideological analysis approach taken by the author also allowed the students to begin analyzing media from an autobiographical standpoint as well. Students were able to compare their personal experiences with the experiences presented in the film, and identify why their experiences differed.

Production elements analysis. Silverblatt, Ferry, and Finan posit a production-elements approach to media literacy (1999). Specifically, the authors cite that media analysis through a production elements approach can show how the creator, using editing, composition, inclusion, or omission, constructed meaning in a presentation. For example, an analysis of Station ABC’s coverage of a story versus Station XYZ’s coverage of the

same story could reveal the use of the same story facts, but vastly different visual presentations. This approach is particularly relevant to journalists as they seek to deliver fair and accurate news stories for targeted audiences. Journalists need to be aware that the way in which they are producing news stories can affect how the audience derives meaning. Knowledge of production elements can also help a journalist avoid or create frames within a story and would indicate a level of understanding of the agenda-setting function of the media.

Goodman (2003) detailed the production elements analysis approach utilized in a high school documentary workshop. The workshop aimed to engage students in a video-based inquiry about social issues in their community. Goodman followed a group of urban students through the process of creating a documentary about gun violence in their neighborhood. Prior to the workshop, the students had little or no experience creating video messages. The process of creating the video helped students “understand how media acts as a frame and a filter on the world while appearing as a clear window” (Goodman, 2003; p. 6). During the production process, Goodman noted that the students became more aware of how their own perspectives affected the video project. He also noted that the process caused the students to begin seeing themselves as journalists, artists and experts rather than just a class of high students. Goodman concluded that video-based inquiry allowed each student to grow in his or her own way, while conventional academic teaching strives for uniformity in the lessons being learned (p. 97).

Autobiographical analysis, nonverbal communication analysis, and mythic analysis. These approaches tend to focus on the media literacy knowledge of consumers

rather than creators. The autobiographical approach uses media content analysis to further personal discovery or growth of the viewer. Nonverbal communication analysis is more commonly linked to interpersonal communication rather than mass communication. A mythic approach to media literacy can provide an idea about the message creator's beliefs and social standing, as well as reveal stereotypes or repetitive images and themes within the message content. Thus, different approaches may be used depending upon the role of the individual in their interaction with media. Although each of these three approaches is important in their own right, the researcher will not test for them.

Meyrowitz (1998) identified three additional types of media literacy approaches based on differing definitions of the term media: (a) content literacy, (b) media grammar literacy, and (c) medium literacy.

Content literacy. The content literacy approach requires looking at the media as instruments that carry messages from the sender to the receiver, and nothing more. Contrary to McLuhan's famous idea that "the medium is the message" (1964, p. 7), content literacy focuses on comparing programming elements rather than qualities of the medium. Media literacy from a content literacy approach involves looking at themes, behaviors, or concerns equally across all mediums (Meyrowitz, 1998). In other words, a person using this approach would contrast content element A with content element B without considering the effects of the medium. While this approach is suitable for contrasting multiple messages on one medium, it is not suitable for making an apples-to-apples comparison of all messages on differing mediums as each medium has its own set of operating parameters.

Grammar literacy. Converse to the content literacy approach, the media grammar literacy approach focuses on individual production characteristics of each medium and ways in which those variables interact with media content (Meyrowitz, 1998). The grammar of a medium is the characteristics that make it unique. For example, these variables include print page size, color balancing, or length of shots (Meyrowitz, 1998). This approach holds the media content constant and instead focuses on the way production elements can be used to affect the perspective or feeling of the content presented (similar to Silverblatt, Ferry, & Finan's production elements approach). Although this approach can be difficult for someone without media production knowledge, the grammar elements are easy to recognize once they have been identified (Meyrowitz, 1998).

Medium literacy. Grammar literacy as well as medium literacy stresses knowledge of how the media system works as the more salient aspect of media literacy. However, the medium literacy approach views each medium as an environment that has certain fixed characteristics that influence media content (Meyrowitz, 1998). With medium literacy analysis, content and production elements are marginalized and the fundamental characteristics of each medium are examined for meaning. The characteristics are often distinguished from each medium and face-to-face communication – for example, when looking at scope and nature of message dissemination, one could examine how many people can attend to the same message at the same moment (Meyrowitz, 1998). It is easy to see how this approach could be of particular use to people creating media content for advertising or marketing purposes.

A media literate individual may call upon one or more approaches to analyze a

media text at varying times. For the purpose of the study, the researcher will focus on ideological and production elements analysis because these approaches are most appropriate in relationship to the role of the journalist as a media creator. Each of Meyrowitz's approaches is appropriate for analyzing the effects of the medium on the message. However, for the purpose of this study the researcher will emphasize the grammar literacy approach. The grammar literacy approach includes building knowledge structures for production variables that can be manipulated to alter the perception of media content, and recognizing that some responses to these variables may depend on individual and cultural experiences (Meyrowitz, 1998). At the collegiate level, journalism students should be learning production elements that allow them to add meaning to their texts.

From Potter's, Aufderheide's, Silverblatt's, and Meyrowitz's media literacy approaches, seven primary criterion of a media literate individual have been identified. The implicit knowledge in these criteria can be easily adapted to the media literacy needs of collegiate journalism students (see Table 2.2). A journalism student should be able to view a story or subject from a variety of perspectives and make a reasoned decision as to how to best present the material in order to maximize understanding for a specific audience. Journalism students are also expected to have developed knowledge structures for understanding media technology, production and business. Here, Meyrowitz's grammar literacy approach is essential for the journalism student's own understanding of the nature of varying mediums. Additionally, a journalism student should be developing critical thinking skills that allow him or her to use the correct approach in a given situation. A journalism student should know how to make changes to

Table 2.2

Knowledge Implicit in the Seven Primary Criterion of a Media Literate Individual

Knowledge	Criterion
Media effects	Awareness of media's impact on the individual and society
Media technology and business	Understanding of the media system and how it works
Information processing and critical thinking	Development of strategies for accessing, analyzing and producing information in a variety of mediums
Social construction	Awareness of the social constructivist function of media content
Content meanings and critical thinking	Increased enjoyment or appreciation of media content meanings from a cognitive, emotional, moral, aesthetic, civic, or commercial perspective
Civics	Knowledge of the media's role within the First Amendment
Personal Development	Continual development of these components as mental maturity increases

a story that will be aired on television, broadcast on the radio, or printed in the paper so that audience understanding is maximized in each medium. An understanding of how the audience will interpret messages as well as how those messages fit with and create societal discourse should also be developed. Journalism students should also develop knowledge structures for understanding civic and First Amendment issues. Finally, journalism students should commit to a continual development of these skills and knowledge structures.

Media Literacy Education

In tracing back the roots of media literacy, it is hardly surprising that schools were concerned with teaching students about the media as early as the 1960s (Hall & Whannel, 1964; Murdock & Phelps, 1973). However, Rosenbaum, Beentjes and Konig (2008) note that media literacy today remains a largely grassroots concept with new initiatives and ideas constantly being developed. Meanwhile, mass communication scholars have largely focused on defining media literacy, developing media education programs, and measuring those programs. Thus, media education programs dispense scientific knowledge about media literacy, and the measurement of media literacy shows the relative success of those dispersions (Rosenbaum, Beentjes, & Konig, 2008).

Regardless of the particular approach to media literacy being used, there are key unifying principles that embody the work of most media literacy educators and researchers (Hobbs, 2004b, p. 26). The first key principle embodied is that all messages are constructions that must be examined. The second key principle is that messages are abstract representations of the world that should be analyzed and compared with an individual's reality. Third, messages have economic and political purposes and contexts,

and knowledge structures should be developed for understanding these processes.

Fourth, messages use languages and conventions that can be just as meaningful, if not more so, than words alone. Finally, people interpret messages differently depending on their relationship and interaction with the text (Hobbs, 2004b).

Thoman (2003) built on Hobbs' principles by identifying five basic questions that should be asked about any media message: (a) who created this message and why are they sending it? (b) what techniques are being used to attract my attention? (c) what lifestyles, values, and points of view are represented in this message? (d) how might different people understand this message differently than me? and (e) what is omitted from this message? Thoman emphasized that these direct questions can open up many layers of follow-up questions, which could result in a more engaging media literacy learning experience. Thoman advocates media literacy education that utilizes this core questioning, as well as close analysis of media messages and reflection of one's own experiences. A new area of media literacy theory further supports these principles and approaches by emphasizing the benefits of media literacy education..

Theoretical Framework

Cognitive Theory of Media Literacy. Potter (2004) studied how individuals learn to become media literate and drew from his earlier research to author a theory of media literacy. The cognitive theory of media literacy defines the process of becoming media literate in three parts (Potter, 2004). First, Potter provided an umbrella definition that emphasized the development of "knowledge structures" that provide individuals with the perspective from which to view the media's business, content, and effects (2004).

Potter's theory stated that "The more people use these knowledge structures in mindful

exposures (to the media), the more they will be able to avoid high risks for negative effects. Thus, they will be more media literate” (2004, p. 59). Thus, the theory not only provides a blueprint for media literacy education, but also an idea of the benefits individuals can expect from becoming more media literate.

Potter defined knowledge structures as carefully constructed areas of information and understanding built on accuracy and utility (2004). Knowledge structures are different from other types of information because knowledge structures require spending time gathering and researching information rather than passively observing it. Knowledge structures are built during the process of researching the information and checking it for information and accuracy. Potter wrote that five foundational knowledge structures support media literacy: (a) media content, (b) media industries, (c) media effects, (d) real world information, and (e) the self (2004).

The five foundational knowledge structures identified by Potter are very similar to the seven criterion of a media literate individual identified earlier in this chapter. Table 2.3 describes Potter’s foundational knowledge structures and compares them with the seven criterion of a media literate individual (see next page). Although the key ideas are worded a little differently, it is evident that the objectives are much the same. Using these clearly defined knowledge structures as identified in Potter’s theory, journalism educators could measure the success of their media literacy program. Media literacy curriculum based on the development of knowledge structures also could provide clear learning outcomes for students.

The importance of knowledge structures in media literacy education cannot be understated; Comstock, Chaffee, Katzman, McCombs, and Roberts (1978) and Rice and

Table 2.3

Comparison of Potter's Foundational Knowledge Structures and the Seven Criterion of a Media Literate Individual

Potter's Knowledge Structure	Definition	Related Criterion
Media Content	Ability to identify values, patterns and formulas in media messages	<i>Content Meanings and Information Processing</i>
Media Industries	Understanding of the media business	<i>Media Technology and Business</i>
Media Effects	Understanding of process of influence of media on individuals and groups	<i>Media Effects and Social Construction</i>
Real World Information	Information gathered outside of media sources	<i>Civics</i>
The Self	Awareness of oneself, of individual personality and experiences	<i>Personal Development</i>

Wartella (1981) found that people who have already developed this ability would learn the most from media. Other researchers have attempted to measure the degree to which knowledge structures affect information gathering. Hambrick, Meinz and Oswald (2007) measured the degree to which ability, personality and interests affected current events knowledge. The researchers found that ability, personality and interests contributed in different ways to current events knowledge, depending on the specific area. In many cases, prior knowledge of a current events area was the best predictor of acquiring knowledge about that area (Hambrick, Meinz & Oswald, 2007). This suggests that developing knowledge structures as a central part of media literacy education helps students acquire further knowledge in that area.

The second part of Potter's cognitive theory of media literacy explains that there are two processes by which media literacy is constructed – the continual building of knowledge structures and acting in a media-literate manner in relation to media messages (Potter, 2004). These processes emphasize that media literacy is a constantly developing, individual skill that must be practiced in order to be maintained. Like any skill that isn't used, media literacy abilities will deteriorate over time. In the third and final part, Potter stated that there must be a purpose for media literacy: "The purpose of becoming media literate is to gain greater control over one's exposures and to construct one's own meaning from the messages in those exposures," (2004, p. 62). If the ultimate goal of media literacy education is to teach students to critically assess media messages for themselves, Potter's theory provides both an outline of objectives and benefits of media literacy.

Social Construction Theory. The knowledge structures that are central to Potter's cognitive theory of media literacy are also the foundational basis of social construction theory. Berger and Luckmann (1966) developed the social construction of reality theory after studying Scheler's discussion of the sociology of knowledge. Scheler's study examined the relationship between human thought and the social context within which it arises (Berger & Luckmann, 1966). In social construction theory, Berger and Luckmann maintained that the process in which knowledge construction occurs must be analyzed (1966). If we view media literacy as the process by which one gains knowledge or meaning, Potter's theory fits well within the discussion of the media as a function of social construction.

Media Literacy Studies

Mihailidis (2006) examined the disparity in media literacy education between the United States and Sweden. Mihailidis considered how journalism and mass communication educators in the United States and Sweden approached media literacy as both teaching tool and educational learning outcome. Mihailidis believed "a media literate perspective could improve journalism practice by providing journalism students with a more holistic perspective on message construction and reception" (2006, p. 418). In comparing the attitudes of American and Swedish educators toward media literacy, Mihailidis found a drastic difference. While all of the Swedish academics acknowledged the importance of media literacy in their programs and were generally able to define it, only two American academics stated that media literacy was an important educational tool and important to their programs (Mihailidis, 2006).

Mihailidis concluded that this difference could be seen in a possible correlation

between media literacy education and civic participation. He posited that how young adults (specifically those in higher education) are educated about media could contribute to civic participation. Studies have found higher rates of newspaper readership and civic participation in Sweden than in the United States (Milner, 2002). While the question of whether media literacy education leads to higher civic participation has yet to be answered, it is certainly not without merit. Mihailidis believed Sweden's approach to media education served as an example of how "media literacy as a citizen-empowering entity can offer added-value to a curriculum," (2006, p. 422). Whether increased civic participation is a direct result and vital aspect of media literacy should be debated further. However, until such a direct relationship is further explored, increased civic involvement of individuals should be considered one of the many benefits of media literacy education.

Research studies concerning media literacy have mostly involved children from elementary to college age (Potter, 1998; Gonzales et al., 2004; Austin, 2006; Coughlin & Kalodner, 2006; & Wilksch, 2008). As discussed above, Dennis (2004) found that media literacy is treated as part of the socialization process that introduces youth to the adult world of the media. However, because every person has the capacity to be an "effective, interactive communicator" in the age of the Internet, Dennis and others argue media literacy must continue past the high school stage (2004, p. 9). But even the development of a standard college curriculum has proven difficult. Academic disagreement has led to such courses varying from basic, uncritical survey discussions to theory-laden lecture courses. Of the 61 universities identified as offering media literacy curriculum, only 34 offer it as a separate course and most often it is offered as an elective course (Silverblatt et al., 2002). However, these courses are also found beyond the realm of communication

programs; English and education department programs are equally likely to include some media literacy courses. Kubey and Baker (1999) found that more than 40 states have identified media literacy skills within language arts, social studies, fine and performing arts, library information skills, or health education curricula.

Although standard curricula for media literacy has not been adopted, there have been some studies that have measured the success of media literacy programs implemented at various academic levels. Hobbs (2007) chronicled one of the first high schools to integrate media literacy into its curriculum program via an English course. The course was taught to all students enrolled in 11th grade at a school in Massachusetts beginning in the fall of 1999. The course covered units such as (a) journalism and information, (b) advertising, propaganda, and persuasion, (c) representation of race, gender, and social class, and (d) storytelling. Hobbs gathered data to measure students' ability to critically analyze television news and radio programming and civic engagement. Hobbs found that media literacy education overwhelmingly increased students' understanding of politics and may have played a role in increasing adolescents' sense of skepticism and their sense of efficacy about government. Additionally, students increased their civic knowledge structures and became more active information seekers (Hobbs, 2007, p. 111).

Many media literacy education studies have focused on critically analyzing advertisements. As part of her research at the high school in Massachusetts, Hobbs also studied the effects of a media literacy program on analyzing advertisements (2004). Students were exposed to four weeks of training in analyzing advertisements for purpose, target audience, point of view, and persuasive techniques. Their scores on these

measures were then compared to a control group that did not receive the training. Hobbs found that students who received media literacy education grew their knowledge structures for understanding concepts of target audience, purpose, point of view, and persuasive techniques far more than the control group (2004). Hobbs noted that students in the media literacy group also demonstrated the ability to support their judgments and interpretations using specific evidence and language from the text. She wrote that “Increased ability to identify construction techniques provides evidence that media literacy instruction leads to higher levels of awareness of the constructed nature of a print ad” (p. 15). Thus, Hobbs’ study supports Potter’s (1998) observation that media industry knowledge structures enhance media literacy skills.

Austin and Johnson (1997) looked at the immediate and delayed effects of media literacy training on elementary school students’ attitudes about alcohol. The researchers showed video clips, ads and discussions about television advertising and alcohol ads to 225 third grade students. Before and after administering the media literacy program, Austin and Johnson (1997) measured the students’ attitudes toward desirability of the advertisement, perceived realism, social norms, similarity and identification. The researchers found that the media literacy training had a snowball effect on the students’ attitudes toward alcohol because it helped them immediately identify persuasive intent in the alcohol advertisements they were shown. The students’ ability to identify persuasive intent affected their attitudes toward desirability and similarity (Austin & Johnson, 1997). In addition to these findings, the researchers found that the media literacy training was more effective when it specifically focused on alcohol rather than advertisements in general.

Primack and Hobbs (2009) attempted to determine aspects of media literacy that were most strongly associated with smoking among public high school students. The researchers asked students to respond to survey items about current smoking habits, and attitudes toward smoking, as well as media literacy related variables such as attitudes toward advertisements, tobacco companies, and representations of reality on television. The media literacy items were put into one of three categories based on their core concepts: (a) authors and audiences, (b) messages and meanings, and (c) representation and reality. Bivariate and multivariate analyses were then performed to see if the media literacy items were significantly associated with reduced odds of smoking. Primack and Hobbs found that media literacy variables in all three categories were significantly and independently associated with reduced susceptibility to smoking (2009, p. 198).

Table 2.4 illustrates Primack and Hobbs' Media Literacy Theoretical Framework for the study (see next page). The domains and concepts outlined in their table appear closely related to several of the criterion of a media literate individual outlined earlier in the chapter. It is interesting to note that while all three of the researcher's categories correlated significantly, the messages and meaning category had the most number of items (6) associated with a reduced susceptibility to smoking. The messages and meaning category developed by the researchers includes core concepts that relate to the *media effects* criterion, *content meanings* criterion and *information processing* criterion. The representation and reality category had four significantly associated items that related to the previously identified criterion, particularly those focused on *information processing* and *social construction*. Finally, the authors and audiences category had the

Table 2.4

Primack & Hobbs' Media Literacy Theoretical Framework

Media Literacy Domain	Related Media Literacy Core Concepts
Authors and Audiences (AA)	AA1: Authors create media messages for profit and/or influence. AA2: Authors target specific audiences.
Messages and Meanings (MM)	MM1: Messages contain values and specific points of view. MM2: Different people interpret messages differently. MM3: Messages affect attitudes and behaviors. MM4: Multiple production techniques are used.
Representation and Reality (RR)	RR1: Messages filter reality. RR2: Messages omit information.

(Primack & Hobbs, 2009)

least number of test items to relate significantly. This category relates closely with the *media technology and business* criterion. Primack and Hobbs' research suggests that *media effects, content meanings, and information processing* were useful in reducing susceptibility to smoking among high school students (2009).

Other researchers have produced similar results in studying media literacy's effect on children's attitudes toward advertising. Christenson (1982) found that children who viewed a three-minute video about advertising were more aware of commercials and displayed less trust in commercials than students who did not view the advertisement. Roberts, Christenson, Gibson, Mooser, and Goldberg (1980) found that children who were heavy television viewers were not only more susceptible to commercials, but also to the representations of reality in films. While there have been numerous studies published concerning children's understanding of advertising, the literature concerning media messages and older teens or adults is not as extensive. Further, much of the research has focused on the subject as a media consumer rather than a media creator. However, it is immensely informative to examine media literacy education effects on children if we are to develop media literacy programs as an educational standard.

Keller (2006) explored media literacy knowledge among undergraduate journalism students in a qualitative study. Keller interviewed student editors, staff writers, and photographers and used archival data from his introductory journalism courses as data for his research. In his interviews, Keller found that media literacy, according to the student journalists, is a system for understanding media effects (2006). Keller also found that the young journalists recognized what he called the Journalist Paradox 2: the need to be both a media literate consumer and a media literate creator.

Keller's subjects recognized that "The knowledge structures that are established when an individual develops media literacy skills can likewise be effectively manipulated to better disseminate a specific message or produce an influential news product," (2006, p. 86). Within their discussion of journalists as media literate creators, many of Keller's subjects remarked on the potential of an unethical journalist using media literacy skills to create misinformation or misleading stories. In a way, these statements show that the subjects recognized a responsibility for the potential impact of their creations due to their media literacy education.

Keller also described an "Us vs. Them" mentality among journalism students that emerged during discussion of potential negative impacts of the media. Keller wrote that his media literate students considered themselves separate from other journalists who would misuse or manipulate their position as media creators for unethical means. Keller wrote that in discussions with the journalism students, they did not seem to identify themselves as being in the same groups (media and audience) they were critically analyzing. While the students were willing to call audiences "less critical, less educated, and more gullible," and the media "irresponsible," they view themselves as fringe members of both groups (2006, p. 89-90). Interestingly, Keller's study suggests that these students are exhibiting a high Third Person Effect when it comes to media. Salwen and Dupagne wrote that persons with a high Third Person Effect will "perceive media messages to have greater effects on other people than on themselves" (1999, p. 4). These students undoubtedly felt that their media literacy education afforded them greater protection from media effects.

While providing insights about the meaning of media literacy, Keller's small

sample of students did not measure the level of media literacy knowledge. Thayer (2006) conducted a quantitative study that measured the media literacy and critical thinking skills of ninth graders in a Television Production course. Thayer adapted a media literacy program from the Center for Media Literacy and implemented the curriculum over the 10-week course. Using the quantitative methodology outlined in Hobbs (2004), Rudd and Baker (2000) and Friedel (2004), Thayer hypothesized that the implemented program would increase students' critical thinking about the media. Thayer found a statistically significant difference in media literacy scores of the treatment group after implementing the program (2006). Additionally, Thayer found a significant difference in the critical writing skills of the treatment group after implementing the program, as well as a significant difference in the critical thinking scores between the treatment group and control group (2006). Critical writing skills were defined as a measure of critical thinking through writing. As the sample for the study was drawn from one high school, inferences as to the level of media literacy among all high school freshmen cannot be made. Thayer's study was also limited in that it measured the media literacy abilities of students who are just beginning their studies in journalism and the media. However, Thayer's study suggests media literacy education advances critical thinking and reasoning, and provides an idea as to the level of media literacy of high school freshmen (2006).

According to Potter's theory, if a person is not actively participating in the media literacy development process, he or she is using the default model of information processing (2004). In measuring the media literacy of journalism students, this study seeks to find which process the students are using. Using the seven criteria outlined in

Table 2.2, this study also seeks to determine which approaches, if any, the students are taking in analyzing the media. The study also seeks to determine which approaches, if any, students are taking in analyzing the media by merging ideas found in Keller's and Thayer's studies. A quantitative study measuring collegiate journalism students' media literacy levels can advance the existing body of knowledge and potentially shape future media literacy education. Measuring and comparing journalism students' scores to those of non-journalism students will suggest whether introductory collegiate journalism courses are effectively teaching principles of media literacy.

It is important to note that the research cited above measures knowledge structures and media literacy skills after a media literacy program or curriculum has been administered. For this study, there has been no defined media literacy program implemented. Rather, the researcher will be measuring media literacy skills and knowledge structures to determine if a collegiate journalism education has provided those skills.

Media Education Assessment

Since the 1990s, several books and studies have been published on media education and how to best assess it. Brown (1991) wrote that "media education, just as education in general, ought not limit itself to one form of critical assessment of the media" (p.47). Brown wrote that media education should also emphasize factual observation and ethical considerations as well as critical self-assessment of one's own experiences and beliefs. Sholle and Denski (1994) also suggested that media education students should be invited to direct their own education, taking into account their individual beliefs. Sholle and Denski implied that students should feel comfortable

evaluating the media from their own perspectives, so that they are not merely indoctrinated with others' opinions and conclusions.

In his media education assessment handbook, Christ (1997) emphasized what he wrote was the end-goal for media education students: to merge factual observations and existing knowledge with their own experiences and value systems. To help measure the success of that goal, Christ created an assessment inventory form for media education programs to evaluate their curriculum (p. 16). Christ's assessment system is divided into three areas, (a) skills, (b) attitudes, affect, and values, and (c) knowledge areas. The *skills* section includes components of media literacy such as information processing and critical thinking. The *attitudes, affect, and values* section includes components of media literacy such as professional development and aesthetic sensibility. Finally, the *knowledge areas* section includes components such as economic and legal and regulatory understanding.

Although this system was created for media education professionals to evaluate programs, the system could easily be modified to work for assessment on the individual level. The seven primary criteria of a media literate individual outlined in Table 2.2 can be evaluated on the basis of (a) skill, (b) attitudes, affect, and value, and (c) knowledge areas.

Research Questions and Hypotheses

There has been extensive academic work about the many definitions and characteristics of media literacy. Implementation of media literacy programs at various education levels has also been researched. According to Potter's cognitive theory of media literacy, people exercise greater control over media messages when they utilize literacy skills because they can place a media message in context and select the meaning

that is most useful (1998). Journalism students should be learning this process in order to create content and place it within a context that the audience will likely chose in order to interpret the intended meaning of the message. Thus, the following research question is posed:

RQ1: How well do collegiate journalism majors score on a media literacy survey?

Many journalism majors are required to take a course on media and society, and such courses are often available as electives. This training should contribute to the journalism students' understanding of media literacy as a tool. It is expected that non-journalism majors are not aware of media literacy as a tool without this added training (Hobbs & Frost, 2003; Thayer, 2006; Hobbs, 2007). Thus, the following hypothesis is posed:

H1: Journalism majors will score higher on a media literacy survey than non-journalism majors.

Keller (2006) found that most collegiate journalism students recognized media literacy as a tool they use to interpret media messages. Seven primary criteria of a media literate individual were also identified in the literature review. Those tenets were: (a) awareness of media's impact; (b) understanding of the media system; (c) developing strategies for accessing, analyzing and producing information; (d) awareness of social constructivism in media content; (e) appreciation of media content meanings from several perspectives; (f) knowledge of the media's role within the First Amendment; and (g) continual development of these components (Silverblatt, Ferry, & Finan, 1999). This study seeks to determine whether journalism students recognize these individual principles of media literacy.

Research questions 2 through 7 address each primary component individually.

RQ2: How aware are collegiate journalism students about the impact of media messages?

RQ3: How well do collegiate journalism students understand the media system?

RQ4: What strategies do collegiate journalism students utilize most to analyze broadcast news information?

RQ5: According to collegiate journalism students, what role does media content play in creating a socially constructed environment?

RQ6: What perspectives do collegiate journalism students use to interpret media content?

RQ7: Are collegiate journalism students aware of their rights as guaranteed by the First Amendment?

CHAPTER III

METHODOLOGY

The main goal of this study is to measure the level of media literacy of collegiate journalism students utilizing survey research. Survey research is an established method of collecting data about participants' knowledge of a given subject such as media literacy. Hobbs and Frost used self-administered pre-test and post-test surveys in their study of media literacy's parallels with acquisition of reading and writing skills (2003). Survey research was also used in Austin, Pinkleton and Funabiki's experimental study of media literacy training's effect on desirability (2007). Thayer (2007) employed survey research to measure the improvement of media literacy skills in high school students after a basic television production course. The remainder of this section will discuss (a) selection and recruitment of subjects, (b) the consent form, (c) survey instrument and measures, (d) reliability and validity, and (e) data analysis procedures.

Subjects

The sample of collegiate journalism students for this study was drawn from an accredited large journalism and broadcasting school at a Midwestern university. This program was also on the Accrediting Council on Education in Journalism and Mass Communication's list of 109 accredited journalism programs at the time of this research.

Subject recruitment was done in two ways. First, the researcher contacted the academic advisers for the journalism and broadcasting department and received

permission to survey all department majors. The researcher then contacted each potential subject via an email listserv. The initial contact e-mail was a form letter that identified the researcher, explained the purpose of the research project, and provided a hyperlink to the online survey (see Appendix A). This e-mail was sent to all students with majors in the journalism and broadcasting department, which includes the following major programs: (a) advertising, (b) broadcasting, (c) news editorial, (d) public relations and (e) sports media. After one week, a follow-up solicitation e-mail was sent to all subjects via the listserv to remind them to take the survey (see Appendix B). An additional solicitation e-mail was sent after that.

In order to supplement the survey response rate, subjects were also recruited inside the classroom. The researcher spoke to four reporting classes about the research and presented each class with an opportunity to take the survey in class if the students had not already done so online. In one case, a course instructor offered two extra credit points to students in exchange for taking the survey online. Students were instructed to print the last page of the survey and bring it to class to receive the points. Students who chose not to take the survey could receive the bonus points by attending a meeting of the Society of Professional Journalists.

E-mail and direct classroom recruitment were also used for the sample of non-journalism majors. The sample for e-mail recruitment was selected randomly from the official list of departments in the university's course catalog. The zoology department was selected for e-mail recruitment, which includes students majoring in (a) biological sciences, (b) physiology, and (c) zoology. The researcher contacted the academic advisers for the zoology department and received permission to survey the population. The

researcher then contacted each potential subject via the email listserv for the zoology department. The same initial contact e-mail was used to contact the non-journalism subjects (see Appendix A). After one week, a follow-up solicitation e-mail was sent to all subjects via the listserv to remind them to take the survey (see Appendix B). Two weeks later, the follow-up solicitation e-mail was sent again for the final time.

For the direct classroom recruitment of subjects, the researcher randomly selected a course from the university's course catalog. The selected course was in the Political Science department. The researcher then contacted the course instructors and received permission to recruit inside the classroom during two American government classes. The researcher spoke to the classes about the research and presented each class with an opportunity to take the survey in class.

Consent Form

The Institutional Review Board at the researcher's university reviewed and approved the study and consent form for this research. The survey was accessed through a hyperlink to a website as well as on paper during classroom administration of the instrument. A consent form was shown as the first page of the beginning of each survey, both in the online and paper formats. For subjects taking the online survey, consent was obtained by the subject either selecting Next to continue to the survey or selecting Opt Out to decline participation in the survey. Subjects taking the survey on paper were read the consent form and instructed to return the survey to the researcher if they declined to participate. The consent form informed students about (a) the title of the research project, (b) the researcher's name and contact information, (c) the nature and purpose of the research, (d) the approximated time it would take to complete the survey, (e) a statement

that participation is voluntary, (f) a statement explaining that participation in the study involved minimal risk, and (g) a description of steps taken to ensure subject confidentiality (see Appendix C). No identifying information was gathered. After reading the consent form, the subjects had to choose between clicking on the Next button to advance to the survey or clicking the Opt Out button to exit the Web page.

Survey Instrument and Measures

Development of the survey instrument was based upon a portion of Thayer's (2007) research as well as a media literacy quiz developed by Potter (1998). The survey consisted of 53 total items and was available to students for a four-week period (see Appendix D). The website containing the test instrument for this study was constructed and maintained by the researcher using SurveyMonkey.com, a reputable online resource for building, hosting and securing online surveys.

Questions were asked based on each of Silverblatt, Ferry, and Finan's seven primary criteria, including (a) media's impact, (b) the media system, (c) information processing strategies, (d) social construction, (e) content meanings, and (f) the media's First Amendment role (1999). Questions about continual development were left off the test instrument.

The first question, "How many courses have you had which have discussed media literacy?" was used to determine whether the subjects had been exposed to media literacy in any of their college classes, and to focus the subjects on the topic of media literacy. The second, third, and fourth questions, "How many hours do you spend consuming media per week?" and "How many hours do you spend consuming media per day?" and "How often do you use more than one form of media at a time?" were asked in order to

measure the media habits of the subjects and compare their media usage to their scores on the media literacy questions.

The fifth question was asked to determine how engaged each subject was with various media sources and to compare their engagement in media with their awareness of the media's impact. Subjects responded to a series of statements designed to assess engagement. For example, subjects were asked to respond Yes or No if they had ever written a letter to the editor of a newspaper, or called a television station to complain or compliment it.

Questions six through 39 were designed to measure the variables for the research questions. Questions 40 through 44 were demographic questions. The only demographic information collected was: age, gender, classification, and major. Students in the journalism and broadcasting department were also asked to select their course sequence, which could be (a) advertising, (b) broadcasting, (c) news editorial, (d) public relations and (e) sports media.

Media's impact. To measure students' awareness of the impact of media messages, the researcher used five-point Likert-type scale questions. The responses to the Likert-type scale questions were strongly agree, agree, neutral, disagree, and strongly disagree. Subjects were asked to respond to the five following statements based on their level of agreement with the statement. For example, subjects responded to statements such as "The media manipulate people who aren't well educated," and "Other people are more easily affected by the media than I am." These statements were chosen to operationalize RQ2, "How aware are collegiate journalism students about the impact of media messages?"

The media system. To measure students' knowledge of the media system, the researcher used eight multiple-choice questions. Subjects were asked to choose the correct answer to the following questions from a list of five possible answers. For example, subjects responded to questions such as "Which government agency monitors broadcasters?" and "If a television show has a low rating, what does it mean?" These questions were chosen to operationalize RQ3, "How well do collegiate journalism students understand the media system?"

Information processing strategies. To determine whether students have developed strategies for processing news information, the researcher used five-point Likert-type scale questions. The responses to the Likert-type scale questions were strongly agree, agree, neutral, disagree, and strongly disagree. Subjects were asked to respond to the six following statements based on their level of agreement with the statement. Example statements include, "I know more about the media than other students because of my major," and "Most news reports give representation to all sides of an issue." These questions were chosen to operationalize RQ4, "What strategies do collegiate journalism students utilize to analyze news information?"

Social construction. To measure students' awareness of the social constructivist function of the media, the researcher utilized the five-point Likert-type scale. The responses to the Likert-type scale questions were strongly agree, agree, neutral, disagree, and strongly disagree. Subjects were asked to respond to the following three statements based on their level of agreement with the statement. Sample statements include, "Media education should be required for students in elementary through high school," and "I often find out about social trends through the media."

Subjects were also asked two true-or-false questions, “People often use media that reflect their existing beliefs” and “Media can shape the way people view the rest of the world.” These questions were chosen to operationalize RQ5, “According to collegiate journalism students, what role does media content play in creating a socially constructed environment?”

Content meanings. To measure students’ awareness of content meanings, the researcher used both a five-point Likert-type scale measurement and multiple-choice questions. The responses to the Likert-type scale questions were strongly agree, agree, neutral, disagree, and strongly disagree. For the multiple choice questions, subjects were asked to choose the correct answer from a list of five possible answers. Questions included: “Media content represents American society accurately,” and “Which of the following camera shots is used most often to convey emotional drama?” Subjects were also asked the question, “Define the term ‘media literacy’ to the best of your ability,” in an open-ended format. Responses were coded for each of Silverblatt’s five elements of media literacy. These questions were chosen to operationalize RQ6, “What perspectives do collegiate journalism students use to interpret media content?”

The researcher will also ask the open-ended style question, “Define the term media literacy to the best of your ability.” Responses to this question will then be coded to determine which of the seven criterion of a media literate individual is most often cited in the definitions provided by collegiate journalism students. If possible, this will be compared to non-journalism responses and responses by sequence within the journalism major.

Media's First Amendment role. To determine if collegiate journalism students are aware of the First Amendment's role in the media, the researcher utilized five-point Likert-type scale, multiple-choice, and open-ended style questions. Subjects were asked to respond to two scale questions, including: "Free speech is important to me," and "There should be more regulation of the news media." The responses to the Likert-type scale questions were strongly agree, agree, neutral, disagree, and strongly disagree. The question, "What is a shield law?" was asked in a multiple-choice format. Subjects were asked to choose the correct answer from a list of five possible answers. Finally, four open-ended questions were asked, such as, "Name as many of the five rights guaranteed by the First Amendment you can," and "What is the primary difference between political and commercial speech?" These questions were chosen to operationalize RQ7, "Are collegiate journalism students aware of their rights as guaranteed by the First Amendment?"

Data Analysis

Prior to the data entry process, the researcher created a code book for the data. Once the data collection period ended, the researcher downloaded and imported the online data from SurveyMonkey.com into a Microsoft Excel document. Surveys that were completed on paper were given a unique subject number and entered into the Microsoft Excel document using the code book. Once all data were entered, the file was imported into SPSS to process and analyze the data. The researcher used t-tests and analysis of variance to determine any statistical significance of the data. Alpha was set at the .05 level.

Reliability and Validity

Reliability and external validity were supported by using techniques based on previously established research as well as testing the survey instrument for consistency and accuracy using Cronbach's alpha. Internal validity was supported by a direct relationship between the questions and response items in the instrument to the variables and knowledge structures being studied.

CHAPTER IV

RESULTS

Sample

Subjects. The researcher contacted 655 college students enrolled at a Midwestern university for participation in the study. Of the 655 college students, 291 responded to the request for participation (44%). Of the 291 subjects, 125 (43%) were journalism and broadcasting students and 166 (57%) were from other majors (see Table 4.1). Of the 125 journalism and broadcasting students, 52 (41.6%) were public relations majors, 23 (18.4%) were news/editorial majors, 20 (16%) were sports media majors, 18 (14.4%) were broadcasting majors, and 11 (8.8%) were advertising majors (see Table 4.2). Of the 166 non-journalism majors, 31 (18.7%) were engineering majors, 27 (16.3%) were business majors, 20 (12%) were biological sciences majors, 16 (9.6%) were health sciences majors, 15 (9.1%) were education majors, 12 (7.2%) were agriculture majors, 11 (6.6%) were social sciences majors, 10 (6.1%) were undecided, 8 (4.8%) were art and theater majors, 7 (4.2%) were marketing majors, 3 (1.8%) were fire protection majors, 2 (1.2%) were architecture majors, 2 (1.2%) were computer science majors, and 2 (1.2%) were mathematics majors.

Demographics. Students were asked to provide their gender, age and classification. Of the 291 test subjects, 45.7% were male and 54.3% were female (see Table 4.3). Students' ages were broken down into the following categories: (a) 20 years

Table 4.1
Frequency Table of Students by Major (N=291)

Major	Number in Sample	Percentage of Sample
Journalism Dept. Majors	125	43%
Non-Journalism Dept. Majors	166	57%

Table 4.2
Breakdown of Majors within Collegiate Journalism Department (N=125)

Major	Number in Sample	Percentage of Sample
News/Editorial	23	18.5%
Broadcasting	18	14.5%
Public Relations	52	41.9%
Advertising	11	8.9%
Sports Media	20	16.1%
Missing	1	.8%

Table 4.3
Frequency Table of Students by Gender (N=291)

Gender	Number in Sample	Percentage of Sample
Male	132	45.4%
Female	157	54%
Missing	2	.6%

Table 4.4
Frequency Table of Students by Age (N=291)

Age	Number in Sample	Percentage of Sample
20 Years or Younger	207	71.1%
21-23 Years Old	70	24.1%
24-26 Years Old	8	2.7%
More than 26 Years Old	5	1.7%
Missing	1	.3%

or less (71.4%), (b) between 21 and 23 years old (24.1%), (c) between 24 and 26 years old (2.8%), or (d) more than 26 years old (1.7%) (see Table 4.4). Freshmen accounted for 44.3% of the population, sophomores 22%, juniors 18.6%, and seniors accounted for 14.8% (see Table 4.5). One graduate student respondent was removed from analysis because the focus of the research is undergraduate college students.

Data Screening

Data were screened for missing variables, outliers, and normality prior to being analyzed. The statistical software SPSS was used to screen the data for missing variables. Missing variables accounted for well less than 5% of the data, so listwise deletion was used. Only one univariate outlier was found. This case was found to be part of the population being studied, so Winsorizing was used to bring the variable's z-score into the acceptable range of less than ± 3.29 . Finally, the assumption of normality was assessed visually and using descriptive statistics. Histograms and Q-Q plots indicated only slight to moderate skew for most variables, and all variables fell within the acceptable ± 1.0 range for skewness and ± 2.0 range for kurtosis. Levene's test for equality of variances was performed to test the assumption of homogeneity of variance. The result was not significant. Thus, the assumptions for grouped statistical analysis have been met.

Reliability Analysis

Cronbach's Alpha was generated to test the reliability of the survey's scale questions. The initial assessment provided an alpha level below the desired figure. Item analysis indicated that the alpha would increase if seven response items were eliminated. These response items were (a) "The media manipulates people who aren't well

Table 4.5
Frequency Table of Students by Classification (N=291)

Classification	Number in Sample	Percentage of Sample
Freshman	129	44.3%
Sophomore	64	22%
Junior	54	18.6%
Senior	43	14.8%
Missing	1	.3%

educated,” (b) “I prefer to get the news from one primary source,” (c) “Even though advertisements are funny, they don’t really affect me,” (d) “Teachers rely too heavily on television and the Internet in the classroom,” (e) “Other people are more easily affected by the media than I am,” (f) “I make time to watch my favorite television show every week,” and (g) “There should be more strict regulation of the news media.” The correlation of these items to the rest of the items in the instrument was weak, and the correlation matrix indicated these items had mostly low and non-significant correlations with the other items. Thus, these items were deleted. The deletion of response items (a), (c), (e), and (f) eliminated all but one of the response items designed to test the impact variables referred to in Research Question 2. Due to the lack of test items to measure RQ2, it was removed from further analysis. Cohen and Cohen (1983) found that an alpha of .60 or higher was acceptable for social and behavioral research. The deletion of these seven items increased alpha to .625 and left 32 response items available for analysis.

Media Consumption and Engagement Data

Media literacy courses. Students were asked to report how many courses they had which discussed media literacy. Journalism majors ($M = 3.44$, $SD = 1.23$) reported taking more courses that discussed media literacy than non-journalism majors ($M = 1.68$, $SD = .94$). This finding was statistically significant ($t(288) = 13.82$, $p = .0005$) (see Table 4.6).

An ANOVA was conducted to examine mean differences based on program sequence. Journalism sequences were compared to determine if there was any variance among sequences. For the question, “How many courses have you had which have

Table 4.6

T-Test Comparing Major by Courses Discussing Media Literacy

Level	N	Mean	SD	T	Eta	Eta2
Journalism Major	125	3.44	1.23	13.82**	.631	.399
Non-journalism Major	165	1.68	.94			

* $p < .05$, ** $p < .01$

discussed media literacy?”, no significant difference was found between the sequences.

Media Consumption. Students were asked to report their media consumption habits for comparison to test items measuring media’s impact. Responses to the question, “How many hours do you spend consuming media per week?” indicated that journalism majors ($M = 3.96$, $SD = 1.07$) spend more time consuming media each week than non-journalism students ($M = 3.27$, $SD = 1.10$). This finding was statistically significant ($t(288) = 5.32$, $p = .0005$). Responses to the question, “How many hours do you spend consuming media per day?” also supported the idea that journalism majors ($M = 2.72$, $SD = .95$) consume more media than non-journalism majors ($M = 2.18$, $SD = .70$). This finding was also significant ($t(286) = 5.43$, $p = .0005$).

An ANOVA was conducted to examine mean differences based on program sequence. No significant differences in media consumption were found between the journalism majors.

Students were also asked to report on their media use habits by responding to the question, “How often do you use more than one form of media at a time?” Journalism majors ($M = 3.50$, $SD = .79$) were more likely to use multiple forms of media at a time than non-journalism majors ($M = 2.95$, $SD = .84$). This finding was also significant, ($t(287) = 5.60$, $p = .0005$). A one-way analysis of variance indicated no significant differences in media use habits based on sequence.

Engagement in Media Sources. Subjects were asked to respond Yes or No to nine questions about their engagement with media sources. A significant difference was found in six of the test items. Journalism majors ($M = .62$, $SD = .49$) were more likely to have written or maintained a blog on the Internet than non-journalism majors ($M = .34$,

SD = .48), ($t(289) = 4.90, p = .0005$). Journalism majors ($M = .78, SD = .42$) were also more likely to have written or produced a news story for print, broadcast or the Internet than non-journalism majors ($M = .14, SD = .35$), ($t(289) = 13.94, p = .0005$). The difference between the means was slightly less for journalism ($M = .54, SD = .50$) and non-journalism ($M = .22, SD = .41$) majors in response to the question, “Have you ever written or produced other media content for print, broadcast or the Internet?”, though the finding was still statistically significant ($t(289) = 6.10, p = .0005$). In response to the question, “Have you ever spoken with a reporter about a news story?”, journalism majors ($M = .50, SD = .50$) were more likely to have done so than non-journalism majors ($M = .20, SD = .41$), ($t(289) = 5.48, p = .0005$). Journalism majors ($M = .18, SD = .39$) were also more likely to have called or written any news media to report a correction of fact than non-journalism majors ($M = .05, SD = .22$), ($t(289) = 3.80, p = .0005$).

Finally, the question “Have you ever called a television station to complain or compliment it?” produced a statistically significant finding ($t(289) = 1.96, p = .05$) between journalism ($M = .07, SD = .26$) and non-journalism ($M = .02, SD = .15$) majors. A summary of the significance of the survey findings in media consumption and engagement can be found in Table 4.7.

An ANOVA was conducted to examine mean differences based on program sequence. Significant differences between the sequences were found on two of the response items. Journalism majors in the news/editorial sequence ($M = 1.00, SD = .0005$) were more likely to have written or produced a news story for print, broadcast or the Internet than journalism majors in sports media ($M = .60, SD = .50$) or advertising ($M = .45, SD = .52$) sequences. This finding was statistically significant, ($F(4, 119) = 5.20, p$

Table 4.7

Table of Means for Media Consumption and Engagement (N = 291)

Question	Journalism Majors (Mean)	Non-journalism Majors (Mean)	Significance
How many courses have you had which have discussed media literacy?	3.45	1.68	.000**
How many hours do you spend consuming media per week?	3.96	3.27	.000**
How many hours so you spend consuming media per day?	2.72	2.18	.000**
How often do you use more than one form of media at a time?	3.50	2.95	.000**
Written a letter to the editor of a newspaper?	.13	.08	.227
Called in to a radio talk show?	.32	.33	.924
Written or maintained a blog on the Internet?	.62	.34	.000**
Written or produced a news story for print, broadcast, or the Internet?	.78	.14	.000**
Written or produced other media content for print, broadcast, or the Internet?	.54	.22	.000**
Called a television station to complain or compliment it?	.07	.02	.05*
Spoken with a news reporter about a story?	.50	.20	.000**
Called or written any news media to report a correction of fact?	.18	.05	.000**
Verified through alternative sources that a statement made in a news story you read or watched was accurate?	.46	.37	.158

* $p < .05$, ** $p < .01$

= .001). Journalism majors in the news/editorial sequence ($M = .43$, $SD = .51$) were also significantly more likely to have called or written any news media to report a correction of fact than majors in the public relations ($M = .13$, $SD = .35$) and advertising ($M = .0005$, $SD = .00$) sequences, ($F(4, 119) = 3.65$, $p = .008$).

Media Literacy Survey

RQ1 sought to learn how journalism majors would score on a media literacy survey. The survey included questions measuring attitudes, habits, and knowledge of the media. To measure knowledge, the survey instrument included 10 multiple-choice response items that asked subjects to identify the correct answer out of 5 possible responses. The survey also asked four open-ended style questions to measure the specific knowledge structure First Amendment knowledge. Subjects were awarded one point for each correct response given, for a maximum of 14 possible points. Data were then analyzed using independent-samples t-tests, one-way analysis of variance, and analysis of association and effect size.

Hypothesis 1, which stated that journalism majors would score higher on a media literacy survey than non-journalism majors, was supported by the results. An independent-samples t-test found that journalism majors ($M = 6.25$, $SD = 2.28$) had significantly more correct responses than non-journalism majors ($M = 3.33$, $SD = 1.69$), ($t(289) = 12.56$, $p = .0005$) on the media knowledge portion of the survey (See Table 4.8). A test of association was conducted to measure the strength of association and the effect size. Eta was .59, which indicates a moderate, positive relationship (Frankfort-Nachmias & Leon-Geurrero, 2002). Eta-squared was .35, indicating that major explained 35.3% of the variance in the survey score.

Table 4.8

T-Test Comparing Major by Media Literacy Survey Score

Level	N	Mean	SD	T	Eta	Eta-Squared
Journalism Major	125	6.25	2.28	12.56**	.594	.353
Non-journalism Major	166	3.33	1.69			

* $p < .05$, ** $p < .01$

Among journalism majors, news/editorial students had the highest score ($M = 7.74$, $SD = 2.26$), followed by advertising students ($M = 6.82$, $SD = 1.89$), broadcasting students ($M = 6.39$, $SD = 2.28$), sports media students ($M = 6.00$, $SD = 2.49$), and public relations students ($M = 5.54$, $SD = 2.01$). The researcher performed a one-way analysis of variance using Scheffe's method for the post hoc test to examine the differences in means by sequence (See Tables 4.9, 4.10 and 4.11). The one-way ANOVA indicated news/editorial majors had significantly higher scores on the media knowledge portion of the survey than public relations majors, ($F(4, 119) = 4.37$, $p = .002$).

A test of association was conducted to determine the strength of association and the effect size. Eta was chosen because it is used for grouped analysis. The value of Eta was .36, which represents a weak, positive relationship (Frankfort-Nachmias & Leon-Guerrero, 2002). Eta-squared was used to determine the effect size, $\eta^2 = .13$. Thus, sequence explained 13% of the variation in media knowledge scores.

Media System

RQ3 sought to measure journalism students' knowledge of the media system. To measure knowledge, the survey instrument included 8 multiple-choice response items that asked subjects to identify the correct answer out of 5 possible responses. Subjects were awarded one point for each correct response given, for a maximum of eight possible points. An independent-samples t-test was conducted to examine the difference between journalism majors and non-journalism majors. The t-test indicated that journalism majors ($M = 3.72$, $SD = 1.46$) scored higher on the media system portion of the survey than non-journalism majors ($M = 2.24$, $SD = 1.28$). This finding was statistically significant ($t(289) = 9.39$, $p = .0005$).

Table 4.9

Descriptive Statistics for Sequence and Media Literacy Score

Sequence	N	M	SD
Non-journalism	166	3.33	1.69
News/Editorial	23	7.74	2.26
Broadcasting	18	6.39	2.28
Public Relations	52	5.54	2.01
Advertising	11	6.82	1.89
Sports Media	20	6.00	2.49
Total	290	4.58	2.44

Table 4.10

One-Way ANOVA for Media Literacy Score by Program Sequence

Source	SS	DF	MS	F	Eta	Eta-Squared
Between	82.47	4	20.62	4.37**	.36	.13
Within	561.27	119	4.72			
Total	643.74	123				

* $p < .05$, ** $p < .01$

Table 4.11

Scheffe Multiple Comparison Test for Media Literacy Score by Program Sequence

Mean	Sequence	News/Ed	Broadcasting	P.R.	Ad.	Sports
7.74	News/Editorial			**		
6.39	Broadcasting					
5.54	Public Relations	**				
6.82	Advertising					
6.00	Sports Media					

* $p < .05$, ** $p < .01$

One-way analysis of variance was then conducted to determine if the difference between the means varied by sequence. News/editorial students ($M = 4.30$, $SD = 1.46$) had the highest mean, followed by advertising students ($M = 4.00$, $SD = 1.34$), sports media students ($M = 3.95$, $SD = 1.64$), broadcasting students ($M = 3.61$, $SD = 1.42$), and public relation students ($M = 3.33$, $SD = 1.35$). These differences were not significant.

Information Processing Strategies

The purpose of RQ4 was to determine information processing ability of journalism students. Initially, six scale questions were asked to assess this variable; however, two of the questions were removed during reliability analysis. The remaining four questions were analyzed using independent-samples t-tests and one-way analysis of variance.

In response to the statement, “I know more about the media than other students because of my major,” journalism majors ($M = 2.90$, $SD = .84$) indicated greater agreement than non-journalism majors ($M = 1.27$, $SD = .88$). This finding was statistically significant ($t(289) = 15.96$, $p = .0005$). Among journalism majors, news/editorial students ($M = 3.22$, $SD = .74$) had the most agreement with the statement, followed by sports media students ($M = 3.05$, $SD = .69$), broadcasting students ($M = 2.83$, $SD = .92$), advertising students ($M = 2.82$, $SD = .75$), and public relations students ($M = 2.77$, $SD = .90$). One-way analysis of variance was performed to determine if the differences between these means varied significantly. The differences were not significant.

In response to the statement, “Most news reports give representation to all sides of an issue,” journalism majors ($M = 1.42$, $SD = .88$) indicated stronger agreement with the

statement than non-journalism majors ($M = 1.02$, $SD = .83$). This finding was statistically significant ($t(289) = 3.95$, $p = .0005$). One-way analysis of variance was performed to see if the means would vary significantly by sequence. Among journalism majors, news/editorial students ($M = 1.83$, $SD = 1.15$) indicated the most agreement with the statement, followed by public relations students ($M = 1.42$, $SD = .80$), sports media students ($M = 1.40$, $SD = .88$), broadcasting students ($M = 1.17$, $SD = .51$) and advertising students ($M = 1.09$, $SD = .83$). The F-test indicated that the differences between these means were not significant.

In response to the statement, “Media literacy is an important skill for people to have,” an independent-samples t-test indicated that journalism students ($M = 3.21$, $SD = .59$) had a higher level of agreement than non-journalism students ($M = 2.75$, $SD = .70$). This finding was statistically significant, $t(289) = 5.88$, $p = .0005$. One-way analysis of variance revealed that journalism majors within the advertising sequence ($M = 3.36$, $SD = .51$) had the highest mean, followed by the broadcasting sequence ($M = 3.33$, $SD = .59$), news/editorial sequence ($M = 3.30$, $SD = .54$), public relations sequence ($M = 3.21$, $SD = .50$) and sports media sequence ($M = 2.95$, $SD = .69$). However, the F-test indicated that the differences were not statistically significant.

In response to the statement, “Local newscasts accurately portray what is happening where I live,” no significant difference in agreement was found between journalism majors ($M = 2.14$, $SD = .89$) and non-journalism majors ($M = 2.04$, $SD = .94$). An F-test indicated that variance between the means by sequence for sports media students ($M = 2.50$, $SD = .51$), public relations students ($M = 2.13$, $SD = .93$), broadcasting students ($M = 2.11$, $SD = .96$), news/editorial students ($M = 2.00$, $SD =$

1.00) and advertising students ($M = 1.91$, $SD = .83$) differed slightly, but not statistically significant.

Social Construction

RQ5 proposed to measure student awareness of the social construction function of the media. Subjects responded to three statements based on their level of agreement, as well as two true-or-false statements. In response to the statement, “Media education should be required for students in elementary through high school,” journalism majors ($M = 2.32$, $SD = .98$) indicated a slightly higher level of agreement than non-journalism majors ($M = 2.04$, $SD = .88$). This finding was statistically significant ($t(289) = 2.54$, $p = .012$). Among journalism majors, means varied slightly, but not significantly, by sequence according to a one-way analysis of variance. Broadcasting students ($M = 2.56$, $SD = .98$) indicated the most agreement with the statement, followed by public relations students ($M = 2.44$, $SD = .85$), advertising students ($M = 2.36$, $SD = 1.12$), news/editorial students ($M = 2.35$, $SD = 1.03$) and sports media students ($M = 1.80$, $SD = 1.06$).

In response to the statement, “I often find out about social trends through the media,” journalism majors ($M = 2.87$, $SD = .71$) had a higher level of agreement than non-journalism majors ($M = 2.37$, $SD = .96$). This finding was statistically significant ($t(289) = 4.95$, $p = .0005$). One-way analysis of variance was conducted to determine if agreement with the statement varied by sequence. The F-test indicated that journalism majors within the public relations sequence ($M = 2.98$, $SD = .51$) and broadcasting sequence ($M = 3.17$, $SD = .51$) had a statistically significant difference in their level of agreement with the statement than news/editorial students ($M = 2.43$, $SD = 1.08$), ($F(4, 119) = 3.82$, $p = .006$). The means of advertising students ($M = 3.00$, $SD = .63$) and

sports media students ($M = 2.75$, $SD = .64$) did not differ significantly.

In response to the statement, “We learn a lot about our culture through the media,” journalism majors ($M = 3.11$, $SD = .66$) were more likely to agree with the statement than non-journalism majors ($M = 2.64$, $SD = .74$). This finding was statistically significant ($t(289) = 5.58$, $p = .0005$). An ANOVA indicated that journalism majors within the broadcasting sequence ($M = 3.28$, $SD = .67$) had the highest mean, followed by the advertising sequence (3.18 , $SD = .87$), public relations sequence ($M = 3.10$, $SD = .66$), news/editorial sequence (3.09 , $SD = .52$), and sports media sequence (3.00 , $SD = .73$). These differences were not significant.

Subjects were asked to respond to the true-or-false statement, “People often use media that reflect their existing beliefs.” Journalism majors ($M = .98$, $SD = .154$) were statistically more likely to respond “True” to the statement than non-journalism majors ($M = .89$, $SD = .31$), ($t(289) = 2.78$, $p = .006$). A one-way analysis of variance was conducted to determine if there were mean differences based on sequence. The F-test indicated that there were no significant differences in the means for the news/editorial, broadcasting, public relations, advertising, or sports media sequences.

In response to the statement, “Media can shape the way people view the rest of the world,” journalism majors ($M = 1.00$, $SD = .0005$) were statistically more likely to respond “True” to the statement than non-journalism majors ($M = .95$, $SD = .22$), $t(289) = 2.52$, $p = .013$. An ANOVA was conducted to determine if there were any differences in the means based on sequence. The F-test indicated that there was no significant difference based on sequence.

Content Meanings

RQ6 sought to measure students' awareness of content meanings by comparing responses to a scale question and a multiple-choice question. In response to the question, "Media content represents American society accurately," journalism majors ($M = 1.71$, $SD = .85$) were more likely to agree with the statement than non-journalism majors ($M = 1.35$, $SD = .90$). This finding was statistically significant ($t(288) = 3.53$, $p = .0005$). ANOVA was conducted to determine if there were significant mean differences based on sequence. Although there were slight variations among journalism sequences, the F-test indicated that these differences were not significant.

Subjects were asked to give the correct response out of five possible responses to the question, "Which of the following camera shots is used most often to convey emotional drama?" Journalism majors ($M = .72$, $SD = .45$) had a slightly higher correct response rate than non-journalism majors ($M = .65$, $SD = .49$). However, the t-test indicated that this difference was not significant. An ANOVA was also conducted to determine if variation in means existed based on sequence. The F-test indicated that there were no significant differences in the means based on sequence.

Finally, subjects were asked to respond to the question, "Define media literacy to the best of your ability." Responses were then coded depending on their correspondence to the seven criteria of a media literate individual. Of the 291 subjects, 93 (32%) gave no response to the question and 75 (25.8%) gave an overbroad definition for media literacy, such as "being literate about the media," which could not be coded into one of the seven primary criterion.

Only four of the seven criteria were identified in the responses to the question.

Of the remaining responses, 37 subjects defined media literacy as having an understanding of the mass communication process. For example, one subject wrote that media literacy was “understanding terms used in the media industry.” Thirty-two subjects defined media literacy as analyzing media messages; an example of this type of response was, “(media literacy is) the ability to decipher between fact and opinion and to recognize when information is biased.” Another 32 respondents viewed media literacy as an understanding of media content as text. An example of this type of response is, “(media literacy is) knowing how to translate and relate to the media.” Twenty respondents provided a definition of media literacy than indicated an awareness of media’s impact. For example, one subject wrote that media literacy means knowing “how [sic] works, how it pulls you in and how it effects society.” Finally, two subjects defined media literacy as relating to frequency of media use, however, this definition is not one of the seven criteria. A chi-square analysis of this data indicated that there is no significant difference between journalism and non-journalism majors. Table 4.12 illustrates the cross tabulation of responses and major.

First Amendment

RQ7 sought to determine if journalism students are aware of the First Amendment’s role in the media. Subjects were asked to respond to two scale questions as well as a combination of open-ended and multiple-choice questions about the First Amendment to measure knowledge. During reliability analysis, one of the scale questions was removed from analysis, leaving one scale question for analysis. In response to the statement, “Free speech is important to me,” journalism majors ($M = 3.56$, $SD = .59$) were more likely to agree with the statement than non-journalism majors ($M = 3.42$, $SD =$

Table 4.12

Cross Tabulation of Definition of Media Literacy and Major

Definition		Journalism	Major Non-journalism	Total
Awareness of Impact	Count	10	10	20
	% within Major	13.9%	19.6%	16.3%
Understanding the Mass Communication Process	Count	29	8	37
	% within Major	40%	15.7%	30%
Analyzing Media Messages	Count	20	12	32
	% within Major	28%	23.5%	26%
Content as Text	Count	12	20	32
	% within Major	16.7%	39.3%	26%
Frequency of Media Use	Count	1	1	2
	% within Major	1.4%	1.9%	1.7%
Total	Count	72	51	123
	% within Major	100%	100%	100%

.61). This finding was statistically significant ($t(288) = 2.00, p = .046$). An ANOVA was also conducted to determine if there was a variation in means based on sequence.

Although there were slight variations in the sequence means, the F-test indicated that there were no further differences in mean based on sequence.

To measure First Amendment knowledge, subjects were awarded one point for each correct response to a series of multiple choice and open-ended style questions, for a total of eight possible points. The multiple-choice question asked subjects to identify the correct answer out of five possible responses. Journalism majors ($M = 4.78, SD = 2.30$) scored significantly higher on the First Amendment questions than non-journalism majors ($M = 2.48, SD = 1.67$). This finding was statistically significant, $t(289) = 9.92, p = .0005$. An ANOVA was conducted to determine if differences in the means existed based on sequence. Journalism majors within the news/editorial sequence ($M = 5.57, SD = 2.23$) had the highest score followed by students in the broadcasting sequence ($M = 4.83, SD = 2.68$), public relations sequence ($M = 4.71, SD = 2.08$), advertising sequence ($M = 4.73, SD = .84$) and sports media sequence ($M = 4.30, SD = .47$). The difference in the means was not statistically significant.

CHAPTER V

DISCUSSION AND IMPLICATIONS

The goal of this study was to measure the level of media literacy of journalism students and to compare those results with responses from non-journalism students. Responses from journalism students were also examined to determine if results differed by journalism related sequences. The first objective was an investigation of the different components of media literacy as outlined by the seven primary criteria of a media literate individual. The second objective was an investigation of the responses to these components to see if responses to these components varied by major and sequence. Because this study focused on media literacy components and knowledge structures, Potter's cognitive theory of media literacy served as the theoretical framework.

Results of the study indicate journalism majors scored higher on the media literacy survey than non-journalism majors. Specifically, journalism majors in the news/editorial sequence scored highest on the media literacy survey. However, the study also found that journalism majors did not score as well as might be expected on the survey. This study also found statistically significant differences in media consumption, media engagement, and attitudes about media literacy between journalism and non-journalism majors. A statistically significant difference on four of the test items was also found between journalism majors based on sequence.

This study demonstrates the usefulness of knowledge structures for examining

media literacy components. The survey format allowed for examination of the knowledge structures that make up the seven primary criteria of media literacy, as well as the examination of attitudes and media habits. By combining the measurement of knowledge structures and attitudes, the researcher was able to get a better understanding of collegiate journalism students' media literacy ability. Thus, this study contributes to the body of work in the cognitive theory of media literacy. The following section discusses specific findings of the study and offers implications and directions for future media literacy research.

Discussion

Media Consumption and Engagement. Survey responses indicated journalism majors had more courses that discussed media literacy than non-journalism majors. Journalism majors were found to spend significantly more time consuming media per day and per week than non-journalism majors. Journalism majors were also more likely to use more than one type of media at a time than non-journalism majors. These findings indicate journalism students have a higher level of media consumption and familiarity with media-related topics than non-journalism majors.

Six of the nine engagement questions had statistically significant differences in the responses between journalism and non-journalism majors. Also, statistically significant differences were found between the program sequences with the journalism major. News/editorial journalism majors had the highest engagement with media sources. News/editorial students were significantly more likely than advertising or sports media students to have written or produced a news story for print, broadcast, or the Internet. News/editorial students were also more likely than advertising and public

relations students to have called or written news media to report an error of fact. The responses indicate that while students across all journalism majors are more engaged in media than non-journalism majors, news/editorial students in particular are engaged in both the creation and critique of media.

The relationship between media consumption and engagement is evident within the news/editorial sequence. Although news/editorial students did not have statistically higher daily and weekly consumption rates than students in the four other journalism department sequences, they were more likely to consume multiple media sources at a time and had the highest engagement in media sources. However, sports media students had the highest levels of media consumption and comparatively low levels of media engagement. Thus, further examination would be necessary to discuss the relationship between media consumption and media engagement.

Media Literacy Survey. RQ1 asked how well journalism students would score on a media literacy survey. Subjects were also asked to report how many courses they have had which have discussed media literacy. Data screening showed that the responses for both groups were well within normal range and exhibited the classic bell-curve illustrating normality. After data screening, an independent samples t-test showed that journalism students had more exposure to courses that discussed media literacy than non-journalism students.

The researcher conducted t-tests and ANOVA, which indicated that collegiate journalism students in all five journalism sequences also scored significantly higher on the survey than non-journalism majors. This finding supported Hypothesis 1, which stated journalism majors would score higher on a media literacy survey than non-

journalism majors. This result was predicted because it was posited that journalism students would have had more media literacy education than non-journalism students. Journalism majors within the news/editorial sequence had significantly higher scores on the survey than majors within the public relations sequence. This may indicate congruence in media literacy education among other journalism-related sequences (broadcasting, advertising, and sports media).

Although journalism majors did score higher on the media literacy survey than non-journalism majors, the means do not indicate that journalism students scored well on the survey. This portion of the survey had a maximum score of 14 and a minimum score of zero. The means indicate journalism majors averaged a little less than 50% on the survey, while non-journalism majors averaged a little less than 30% on the survey. A score of 50% on any traditional testing scale would indicate failure. Journalism students who have taken media courses should be expected to score higher than 50% on a media literacy survey. Low scores on the media literacy survey could be explained by the lack of a specific media literacy education program at the school being studied. Although students reported having courses that have discussed media literacy, there is not a uniform approach to media literacy within the journalism program. Developing a targeted media literacy curriculum could raise the media literacy scores at this school. It is also probable that the students in this sample had not yet been exposed to some of the media literacy principles in the survey. Of all respondents, 66% were freshmen and sophomores. Certain media literacy components may not be taught until junior year or higher, thus biasing the score toward the scores of the freshmen and sophomores.

Media System. RQ3 sought to test how well journalism students understood the

media system. An ANOVA and t-tests were used to assess the data. Analysis of the survey data indicated that journalism students had significantly higher scores than non-journalism students on test items covering the media system. This suggests that journalism students in all sequences are receiving similar instruction about the media system. However, the survey data indicated that journalism students once again averaged a little less than 50% on the media system knowledge portion of the survey, while the non-journalism majors again averaged a little less than 30% on the survey. These scores are low, but they are consistent with how the students performed on the media literacy survey. Low levels of understanding of the media system, along with low scores on the media literacy survey, indicate students have not yet developed the necessary knowledge structures to become media literate journalism professionals. Students must have a thorough understanding of the media system in order to work effectively in media related fields.

Although journalism majors scored significantly higher than non-journalism majors, scores within each sequence did not vary significantly from each other on this portion of the survey. However, the scoring indicates that there is some congruence in education about the media system between the journalism sequences. Thus, knowledge of the media system appears to be consistent within the journalism sequences.

Information Processing Strategies. RQ4 sought to determine what strategies journalism students used for analyzing news information. After reliability analysis, four of six test items remained to examine information processing ability of journalism majors. Because some of the items were removed, it may be difficult to come to a conclusion about the information processing ability of journalism students given this

data. However, three of the four items found significant differences between the attitudes of journalism and non-journalism majors. Journalism majors were more likely to agree that: (a) they knew more about the media than their counterparts because of their major, (b) most news reports give representation to all sides of an issue, and (c) media literacy is an important skill for people to have. There were no significant differences in the responses based on journalism sequence.

This finding suggests journalism students believe that constant exposure to knowledge structures and having a critical approach to media messages is important. This would support the tenet of Potter's cognitive theory of media literacy, which states media literacy is constructed by two processes, the continual building of knowledge structures and acting in a media literate manner in relation to media messages (2004). Thus, although journalism students did not score well on the knowledge structure portion of the survey, they do appear to recognize the process of developing media literacy.

The study suggests that journalism students (a) believe they know more about the media than others, (b) believe they are more balanced in their approach to the media, (c) believe their skills are important, and (d) believe that other people should have these skills as well. These attitudes may indicate that because of their major, students in journalism and journalism-related majors feel they are more skilled at interpreting and understanding media content and effects. These responses may indicate a third-person effect among journalism students as found in Keller's study (2006). The third-person effect is an individual's perception that a media message will exert a stronger impact on others than on him or herself (Davison, 1983). Journalism students could believe that their training and education gives them an advantage over non-journalism students in

deciphering and understanding media content.

Social Construction. RQ5 sought to determine whether journalism students understood media content's role in creating a socially constructed environment. The five test items designed to measure social construction were assessed using independent samples t-tests and ANOVA. Data analysis indicated that all test items produced statistically significant differences. Journalism students had higher awareness of social construction than non-journalism students. The data indicates that journalism majors were also more likely to identify the social construction role of the media than non-journalism students. Interestingly, it was public relations and broadcasting students who recognized this function the most.

Public relations students and broadcasting students had significantly higher agreement with the statement, "I often find out about social trends through the media," than news/editorial students. With the other four statements, public relations and broadcasting students had higher means than the other sequences, although the difference was not statistically significant. However, this data does suggest some differences between journalism and journalism-related majors. While the study was not designed to explain this difference, one possibility is that news/editorial journalism students are using media for different purposes than public relations and broadcasting students. It is possible that news/editorial journalism students use media specifically for the gathering of news, while public relations and broadcasting students utilize media most often for communication via social media.

Content Meanings. RQ6 sought to measure journalism students' ability to interpret media content. Independent-samples t-tests and ANOVA as well as a cross

tabulation of responses were used to analyze the data. A t-test indicated that survey items designed to measure knowledge did not produce significant differences between journalism students and non-journalism students. Analysis of the test items designed to measure interpretation of media content indicated that the data was insufficient to measure the variable. One statistically significant difference was found between journalism students and non-journalism students in response to the question, “Media content represents American society accurately.” However, the results from the test items designed to measure this variable were not conclusive.

Although t-tests indicated a significant difference between journalism and non-journalism students on the attitudinal scale, there were no significant differences on the knowledge question. Further examination would be required in order to show a relationship between the responses. Analysis of the cross tabulation of the definition of media literacy and major also indicated that there is no significant difference between journalism students’ definition of media literacy and that of non-journalism students. Thus, no conclusions can be drawn from these questions about journalism students’ awareness of media content meaning.

First Amendment. RQ7 sought to measure journalism students’ awareness of the media’s First Amendment role. All but one of the test items designed to measure First Amendment awareness was analyzed using t-tests and ANOVA. Data indicated journalism majors had significantly higher scores on the First Amendment knowledge portion of the survey than non-journalism majors.

News/editorial students had the highest mean score of the First Amendment knowledge portion of the survey of all the journalism-related majors. The data appears to

support Potter's (2004) cognitive theory of media literacy because it seems that the students who have already developed an understanding of an element have gained the most from interpreting the media for it. Hambrick, Mainz and Oswald's (2007) study of the affect of personality and interests on knowledge also supports this interpretation of the data. It can be suggested that because news/editorial journalism students have a greater interest in the First Amendment and free speech issues, they may also be more knowledgeable.

Journalism majors were also more likely to agree that free speech is important to them than non-journalism majors. Data indicates that news/editorial journalism students have a high awareness of the media's First Amendment role.

Implications

It is not possible to generalize the findings of this study because of the type of sample that was utilized. The findings suggest that journalism students among this sample are likely to consume more media and engage in media more than non-journalism majors. The findings, however, preclude making a determination that these students are doing so in a media-literate manner. Journalism students reported having an average of two courses that had discussed media literacy. While the journalism students scored higher on the media literacy survey than non-journalism students, their performance was still less than might be expected in the media system and First Amendment knowledge structure areas. Students with media literacy training should score higher than 50% on the media literacy survey as well as the media system and First Amendment knowledge questions. These knowledge structure areas must be improved if journalism students are to fulfill their role as the principal storytellers in our society.

In addition to improving knowledge structure areas, journalism students should be furthering their critical thinking ability. Journalism students have to become both media literate users and media literate creators, which will require continual improvement of critical thinking skills (Keller, 2006). This presents the challenge of developing media literacy education programs for journalists and journalism-related majors that focus on critical skills for both creation and consumption of media. Journalism students must develop skills for deconstructing messages and understanding media effects so that they can gather and report accurate, meaningful information (Silverblatt, Ferry & Finan, 1999; Keller, 2006; Milhailidis, 2006).

The journalism students' performance on this survey supports Potter's statement that media literacy is a continuous scale that will increase as mental ability increases (1998). Journalism students in this study have had more education about media knowledge structure areas such as the media system, but as their scores indicate, they have not yet reached their full potential. As Hambrick, Meinz and Oswald (2007) found, people who have already developed knowledge structures in a given area learn more about the area. Media literacy education can also cause individuals to become more active information seekers and increase civic knowledge structures (Hobbs, 2007). Journalism students need to learn as much as possible in these knowledge structure areas because it will help them gather more information in the future.

This research focused on the *cognitive dimension* of media literacy because it emphasized the knowledge structures that are essential for assessing what is known. The survey scores indicate that journalism students haven't yet built these knowledge structures to a satisfactory level. Journalists must continually build their knowledge

structures and critically assess messages in a media literate manner in order gain more information for dissemination to the public. This means developing understanding and knowledge structures beyond what we know to include also, how we know it. In addition to the skills needed to properly vet information, media literacy instruction in journalism education should include determining the origin and credibility of facts. Journalism educators should be cautious not to over-emphasize *what* without exploring *how* (Christ, 1997). This could cause journalism students to place more emphasis on memorizing facts rather than exploring the implications of the facts.

Although journalism students in this study did well on questions designed to measure recognition of media effects, they did not do as well on questions about the media system. This may indicate that although the students have some understanding of the effect of the media, they may not have as clear an understanding of the elements of media messages that can be altered to create certain effects. This is a key aspect of the information-gathering role that journalists play in our society, as outlined in the six functions of a socially responsible press (Seibert, Peterson & Schramm, 1966). For a journalist, media literacy is not only a system for understanding those effects, but also a tool that can be manipulated in order to create and disseminate more influential news products (Keller, 2006). Journalism students should not only develop knowledge structures for assessing and utilizing facts, but also for understanding implications and potential outcomes given those facts.

Journalism students who are not aware of the impact their content has on the audience are not fulfilling their responsibility to the public. As outlined by the World Journalism Educators Congress, one of those responsibilities is to promote media literacy

among the public. Journalism students with little understanding of the media literacy process will hardly be able to promote and support it in practice. Further, encouraging media literacy education among audiences could potentially lead to greater public interest in journalism. Hobbs (2007) found that media literacy education can cause individuals to become more active information seekers and increase their civic knowledge structures. Individuals who are looking for information will likely turn to journalists for answers.

Although organizations such as the WJEC have placed more emphasis on instructing journalism students about media literacy, media literacy research has focused on defining it rather than best practices (Rosenbaum, 2008). Thus, journalism educators should look to programs such as the Center for News Literacy at Stony Brook University for guidance. In addition to overseeing the news literacy course at Stony Brook, the Center is developing curriculum materials for high school aged students and the general public, as well as a high school educator-training program. Although the Center for News Literacy is only two years old, the program has received ample funding to measure the success of its literacy curriculum, as well as partnership offers from other leading universities. In time, the center could become a great resource of vetted media and news literacy program instruction ideas for journalism educators.

It will be extremely important to monitor the progress and implementation of whichever programs are ultimately utilized. Consistently analyzing media literacy curriculum as well as student performance will ensure that key aspects of media literacy aren't missed. To this end, using Potter's (2004) theory as well as the core questioning technique supported by Thorman (2003) and Hobbs (2004b) can provide journalism instructors a basis for guiding media literacy education, as well as metrics for assessing

individual media literacy skills in the classroom.

Collegiate media literacy education for journalists would also benefit from the establishment of national standards. To that end, ACEJMC could be another potential resource of media literacy principles and assessment for journalism educators. The ACEJMC sets education standards in areas such as curriculum and instruction, and assessment of learning outcomes (ACEJMC Accrediting Standards, 2003). As an accrediting organization, the ACEJMC is in a unique position to influence the direction of media literacy education among accredited journalism programs. Adding media literacy criterion to the list of professional values and competencies would provide a clear directive to journalism educators as well as affirm the importance of media literacy programs in journalism education. The ACEJMC also provides support for assessing professional values and competencies. These factors put the ACEJMC in a unique position to help standardize media literacy education curriculum among accredited journalism programs and emphasize the importance of media literacy education beyond the elementary and high school learning levels.

Limitations

There are several limitations with this study. First, only one university was surveyed for media literacy among journalism students, which prevents this study from being generalized to the larger population. Although the response rate was acceptable, the combination of direct email and convenience polling methods may have introduced frame errors, such as the potential for contacting the same subject twice for the survey. Also, demographic data for the survey indicated that the plurality of respondents were freshmen under the age of 20. This could have led to lower-than-normal scores for both

journalism and non-journalism majors, thereby affecting the outcome. Two coders were used to code responses to the question, “Define media literacy to the best of your ability.” The researcher had planned to utilize Chi-Square to interpret the responses, however the response rate for this question prevented such analysis. Thus, intercoder reliability analysis was not conducted.

Another potential limitation became more evident during data analysis: although advertising and sports media are majors included within the journalism department at the sample university, these majors appear to share more similarities with non-journalism students on measures of agreement. The inclusion of these two majors in the journalism group could have affected the outcome of some of the scale questions.

The scale for this study also suffered from reliability issues. Cronbach’s alpha identified seven response items on the scale as problematic. Eliminating these items brought alpha up to an acceptable standard, but it also eliminated key response items designed to measure variables for RQ2, RQ4, and RQ7. Specifically, nearly all of the test items designed to measure RQ2, awareness of media’s impact, were lost.

Directions for Future Research

This study of collegiate journalism students and media literacy indicates that journalism students are avid consumers and engagers of media. It also indicates that their increased consumption and engagement of media has led to an increased ability for understanding specific components of media literacy, such as understanding the media system, the social construction function of the media, and First Amendment literacy. Future research would be necessary, however, to explain more about the relationship between consumption and engagement in media and media literacy levels.

The results of this study indicated that there may be a difference between the way journalism students and students in other majors utilize the media for social construction purposes. While the research at hand was not prepared to explain this difference, the relationship between media's social construction role and journalism sequence may be worth exploring in future research to determine if another factor is more predictive of social construction awareness.

Future researchers should consider using the cognitive theory of media literacy to study the components of media literacy that this study was unable to analyze; specifically the perception of media's impact and interpretation of media content. The researcher believes that this is a fault of the test items being poorly designed to measure the intended variable. It is possible that measurement of media's impact and media content could be successful in future research where the test questions are better designed.

While the researcher emphasized the importance of media literacy for journalism students specifically, future researchers may wish to critically examine other media-related majors, such as marketing or film studies. Finally, future researchers might classroom on the media messages journalism students create.

These are just a few of many possible suggestions for research involving media literacy and college journalism education. There is no doubt that media literacy and its components and applications will provide ample opportunity for future academic research.

REFERENCES

- ACEJMC Accredited Programs 2007-2008. Accrediting Council on Education in Journalism and Mass Communication. Updated Feb. 1, 2008. Retrieved Feb. 5, 2008 from <http://www2.ku.edu/~acejmc/STUDENT/PROGLIST.SHTML>.
- ACEJMC Accrediting Standards. Accrediting Council on Education in Journalism and Mass Communication. Updated Sept. 2003. Retrieved June 15, 2010 from <http://www2.ku.edu/~acejmc/PROGRAM/STANDARDS.SHTML>.
- Aufderheide, P. (2001). Media literacy: From a report of the National Leadership Conference on Media Literacy. In R. Kubey (Ed.), *Media literacy in the information age: Vol. 6. Information and behavior* (pp. 79-86). New Brunswick, NJ: Transaction.
- Austin, E. W., & Johnson, K. K. (1997). Effects of general and alcohol-specific media literacy training on children's decision making about alcohol. *Journal of Health Communication, 2*(1), 17-42.
- Austin, E. W. (2006). Why advertisers and researchers should focus on media literacy to respond to the effects of alcohol advertising on youth. *International Journal of Advertising, 25*(4), 541-544.
- Austin, E. W., Pinkleton, B. E., & Funabiki, R. P. (2007). The desirability paradox in the effects of media literacy training. *Communication Research, 34*(1), 483-506.
- Berger, P. L., & Luckmann, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge*. Garden City, New York: Doubleday.
- Brown, J. A. (1991). *Television "critical viewing skills" education: Major media literacy projects in the United States and selected countries*. Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- Christ, W. G. (1997). Defining media education. In W. G. Christ (Ed.), *Media Education Assessment Handbook* (pp. 3-21). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Christ, W. G. (September 2004). Assessment, media literacy standards, and higher education. *American Behavioral Scientist, 48*(1), 92-96.
- Christenson, P. (1982). Children's perceptions of TV commercials and products: The effect of PSAs. *Communication Research, 9*(4), 491-524.

- Claussen, D. S. (2007). Journalism educators making international declarations. *Journalism & Mass Communication Educator*, 62(2), 237-240.
- Cohen, J. & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences*. 2nd Ed. Hillsdale, N.J.; Lawrence Erlbaum Associates
- Conn, J. L. (April 2006). Few Americans Know First Amendment, Poll Shows. *Church & State*, 59(4), 3-2.
- Comstock, G. A., Chaffee, S., Katzman, N., McCombs, M., & Roberts, D. (1978). *Television and human behavior*. New York: Columbia University Press.
- Coughlin, J. W., & Kalodner, C. (2006). Media literacy as a prevention intervention for college women at low- or high-risk for eating disorders. *Body Image*, 3(1), 35-43.
- Davison, W. P. (1983). The third-person effect in communication. *Public Opinion Quarterly*, 47, 1-15.
- Dennis, E. E. (2004). Out of sight and out of mind: The media literacy needs of grown-ups. *American Behavioral Scientist*, 48(2), 202-211.
- Firestone, C. M. (1992). The Aspen Institute Communications and Society Program National Leadership Conference on media literacy. Retrieved Feb. 5, 2008 from www.medialit.org/reading_room/pdf/358_AspenFrwd_Firestone.pdf
- Frankfort-Nachmias, C. & Leon-Guerrero, A. (2002). *Social statistics for a diverse society*. Thousand Oaks, C.A.: Pine Forge Press.
- Gainer, J.S. (February, 2010). Critical media literacy in middle school: Exploring the politics of representation. *Journal of Adolescent & Adult Literacy*, 53(5), 364-373.
- Gonzales, R., Glik, D., Davoudi, M., & Ang, A. (2004). Media literacy and public health: Integrating theory, research, and practice for tobacco control. *American Behavioral Scientist*, 48(3), 189-201.
- Goodman, S. (2003). *Teaching youth media: A critical guide to literacy, video production, and social change*. New York: Teachers College Press.
- Hambrick, D.Z., Meinz, E. J., & Oswald, F. L. (March 2007). Individual differences in current events knowledge: Contributions of ability, personality, and interests. *Memory & Cognition*, 35(2), 304-316.
- Hayes, B. G., Taub, G. E., & Robinson III, E. H. (March 2003). An empirical investigation of the efficacy of multimedia instruction in counseling skill development. *Counselor Education & Supervision*, 43(1), 177-188.

- Hall, S. & Whannel, P. (1964). *The popular arts*. London: Hutchinson.
- Hobbs, R. & Frost, R. (2003). Measuring the acquisition of media-literacy skills. *Reading Research Quarterly*, 38(3), 330-355.
- Hobbs, R. (2004). Does media literacy work? An empirical study of learning how to analyze advertisements. *Advertising & Society Review* 1154-7311, 5(1).
- Hobbs, R. (April 2004b). Media literacy, general semantics, and K-12 education. *Et Cetera*, 61(1), 24-28.
- Hobbs, R. (2007). *Reading the media: Media literacy in high school English*. New York: Teachers College Press.
- Keller, C. O. (2006). Collegiate journalists, media literacy, the culture of fear, and conscientizacao: A critical ethnography. *Dissertation Abstracts International*, 67(10). (UMI No. AAT 3237840)
- Kubey, R., & Baker, F. (1999). Has media literacy found a curricular foothold? *Education Week*, 19(9), 38-42.
- LOUISIANA STATE UNIVERSITY'S MANSIP SCHOOL, STONY BROOK
UNIVERSITY'S SCHOOL OF JOURNALISM PARTNER TO ADVANCE
NEWS LITERACY IN U.S. (2009, March 21). *US Fed News Service, Including US State News*. Retrieved April 30, 2010, from ProQuest Central database. (Document ID: 1666288641).
- McCall, J. (2007). *Viewer discretion advised*. Lanham, MD: Rowman & Littlefield.
- McLuhan, M. (1964). *Understanding media: The extensions of man*. New York: McGraw-Hill.
- Meyrowitz, J. (1998). Multiple media literacies. *Journal of Communication*, 48(1), 96-108.
- Mihailidis, P. (January 2006). Media literacy in journalism/mass communication education: Can the United States learn from Sweden? *Journalism & Mass Communication Educator* 60(4), 416-422.
- Milner, H. (2002). *Civic literacy: How informed citizens make democracy work*. Hanover, NH: University Press of New England.
- Murdock, G. & Phelps, G. (1973). *Mass media and the secondary school*. London: MacMillan.
- Potter, W. J. (1998). *Media literacy*. Thousand Oaks, CA: SAGE.

- Potter, W. J. (2004). *Theory of media literacy: A cognitive approach*. Thousand Oaks, CA: SAGE.
- Primack, B. A. & Hobbs, R. (2009). Association of various components of media literacy and adolescent smoking. *American Journal of Health Behavior*, 33(2), 192-201.
- Rice, M. & Wartella, E. (1981). Television as a medium of communication: Implications for how to regard the child viewer. *Journal of Broadcasting*, 25(1), 365-372.
- Roberts, D., Christenson, P., Gibson, W., Mooser, L. & Goldberg, M. (1980). Developing discriminating consumers. *Journal of Communication*, 30, 229-23.
- Rosenbaum, J. E., Beentjes, J. W., & Konig, R. P. (2008). Mapping media literacy: Key concepts and future directions. In C. S. Beck (Ed.), *Communication Yearbook 32* (pp. 312-353). New York: Routledge.
- Salwen, M. B. & Dupagne, M. (1999). The third-person effect: Perceptions of the media's influences and immoral consequences. *Communication Research*, 26(5), 523-549.
- Scheler, M. Translated by Frings, M. (1980). *Problems of a sociology of knowledge*. London: Routledge.
- Schneider, H. (2007). It's the audience, stupid!. *Nieman Reports*, 61(3), 65-68. Retrieved Jan. 22, 2008 from ABI/INFORM Global.
- Seibert, F. S., Peterson, T., & Schramm, W. (1966). *Four theories of the press: The authoritarian, libertarian, social responsibility and soviet communist concepts of what the press should be and do*. Chicago: University of Illinois Press.
- Sholle, D. & Denski, S. (1994). *Media education and the reproduction of culture*. Westport, Connecticut: Bergin & Garvey.
- Sholle, D. & Denski, S. (1995). Critical media literacy: Reading, remapping, rewriting. In P. McLaren, R. Hammer, D. Sholle & S. Reilly (Eds.), *Rethinking media literacy: A critical pedagogy of representation* (pp. 7-31). New York City: Peter Lang Publishing.
- Silverblatt, A. (1995). *Media literacy: Keys to interpreting media messages*. Westport, CN: Praeger.
- Silverblatt, A., Ferry, F. & Finan, B. (1999). *Approaches to media literacy: A handbook*. Armonk, NY: M. E. Sharp.

- Silverblatt, A., Baker, F., Tyner, K., & Stuhlman, L. (July 2002). Media literacy in U.S. institutions of higher education. *Webster University Media Literacy Program*. Retrieved from www.webster.edu/medialiteracy/survey/survey_report.htm.
- Thayer, C. M. (2006). The impact of a media literacy program on critical thinking and writing in a high school TV production classroom. *Dissertation Abstracts International* 67(08). (UMI No. AAT 3232068).
- Thoman, E. (2003) Skills and strategies for media education. *The Center for Media Literacy*. Retrieved on May 2, 2010 from www.medialit.org/reading_room/pdf/CMLskillsandstrat.pdf
- Wilksch, S. M. (2008). A preliminary controlled comparison of programs designed to reduce risk of eating disorders targeting perfectionism and media literacy. *Journal of the American Academy of Child and Adolescent Psychiatry*, 47(8), 939-947.
- World Journalism Education Congress. (June 2007). Declaration of principles of journalism education. Retrieved Feb. 5, 2008 from jmc.ou.edu/announcements/WJEC/WJEC_Declaration.pdf

APPENDIX A

Recruitment Letter

Dear Student,

The hyperlink below is a survey that is part of a study that seeks to measure media literacy knowledge of college students. The goal for the research is to compare the media literacy understanding of journalism students with that of non-journalism students. The questionnaire should only take approximately 15 minutes, but participation is voluntary and you may opt out of the survey at any time.

<http://www.surveymonkey.com/s/QG7QGZZ>

Your responses will be both anonymous and confidential. If you elect not to participate, thank you for your consideration. If you wish to see the study results upon conclusion of this research, you may contact the researcher at the e-mail address listed below for a copy of the results. Thank you in advance for your time and participation.

Sincerely,

Jordana Burson

M.S. Degree Candidate

Oklahoma State University

jory.burson@okstate.edu

APPENDIX B

Follow Up Letter

Dear Student,

The hyperlink below is a survey that is part of a study that seeks to measure media literacy knowledge of college students. The goal for the research is to compare the media literacy understanding of journalism students with that of non-journalism students. The questionnaire should only take approximately 15 minutes, but participation is voluntary and you may opt out of the survey at any time.

<http://www.surveymonkey.com/s/QG7QGZZ>

Your responses will be both anonymous and confidential. If you have already completed the survey, please disregard this email. If you wish to see the study results upon conclusion of this research, you may contact the researcher at the e-mail address listed below for a copy of the results. Thank you in advance for your time and participation.

Sincerely,

Jordana Burson

M.S. Degree Candidate

Oklahoma State University

jory.burson@okstate.edu

APPENDIX C

Consent Form

- Project Title:** Measuring Media Literacy Among Collegiate Journalism Students
- Researcher:** Jordana Burson is a Master of Science candidate in the School of Journalism and Broadcasting, Oklahoma State University.
- Purpose:** I wish to assess the media literacy knowledge of collegiate journalism students as well as determine awareness of media literacy among students. You will be asked to participate in a 40 question survey.
- Time:** This survey should take 15 minutes to complete.
- Voluntary:** Your participation is voluntary and you may quit at anytime.
- Risk:** There are no known risks involved in this study.
- Confidentiality:** The survey instrument will not ask for any identifying information. No survey questions or answers will appear on this page. If you wish to withdraw your participation, you may do so at any time, and your answers will not be used in this research. Data may be retained for future use.
- Contact:** Please direct any questions to the researcher, Jordana Burson, at (405) 612-3187 or e-mail at jory.burson@okstate.edu. You may also reach advisor John McGuire at (405) 744-8279 or e-mail at john.mcguire@okstate.edu.
- Questions:** If you have questions about your rights as a research volunteer, you may contact Dr. Shelia Kennison, IRB Chair, 219 Cordell North, Stillwater, OK 74078, (405) 744-1676 or irb@okstate.edu

By taking the attached survey, you indicate that you understand and agree to the conditions mentioned above. If you decline to take the survey, please return the blank form.

APPENDIX D

Test Instrument

INSTRUCTIONS

Please read the questions carefully and answer each to the best of your knowledge. At the end of the survey, there is a small section for demographic information. Please DO NOT include your name anywhere on the survey.

SECTION I – SELF REPORTING

Please respond to the following statements and circle the answer that best describes you.

1. How many courses have you had which have discussed media literacy?
0 1 2 3 More than 3
2. How many hours do you spend consuming media per week?
0 1-3 4-6 7-9 More than 10
3. How many hours do you spend consuming media per day?
0 1-2 3-4 5-6 More than 6
4. How often do you use more than one form of media at a time?
Never Rarely Sometimes Most of the time Always
5. Have you ever done any of the following:

a) Written a letter to the editor of a newspaper?	Yes	No
b) Called in to a radio talk show?	Yes	No
c) Written or maintained a blog on the Internet?	Yes	No
d) Written or produced a news story for print, broadcast, or the Internet?	Yes	No
e) Written or produced other media content for print, broadcast, or the Internet?	Yes	No
f) Called a television station to complain or compliment it?	Yes	No
g) Spoken with a reporter about a news story?	Yes	No
h) Called or written any news media to report a correction of fact?	Yes	No
i) Verified through alternative sources that a statement made in a news story you read or watched was accurate?	Yes	No

SECTION II – SCALE QUESTIONS

Please respond to the following statements based on your level of agreement with the statement.

6. I know more about the media than other students because of my major.
Strongly Agree Agree Neutral Disagree Strongly Disagree
7. The media manipulates people who aren't well-educated.
Strongly Agree Agree Neutral Disagree Strongly Disagree
8. I prefer to get the news from one primary source.
Strongly Agree Agree Neutral Disagree Strongly Disagree
9. Even though advertisements can be funny, they don't really affect me.
Strongly Agree Agree Neutral Disagree Strongly Disagree
10. Media education should be required for students in elementary through high school.
Strongly Agree Agree Neutral Disagree Strongly Disagree
11. I often find out about social trends through the media.
Strongly Agree Agree Neutral Disagree Strongly Disagree
12. Children have improved their ability to learn through television.
Strongly Agree Agree Neutral Disagree Strongly Disagree
13. Teachers rely too heavily on television and the Internet in the classroom.
Strongly Agree Agree Neutral Disagree Strongly Disagree
14. Most news reports give representation to all sides of an issue.
Strongly Agree Agree Neutral Disagree Strongly Disagree
15. Local newscasts accurately portray what is happening where I live.
Strongly Agree Agree Neutral Disagree Strongly Disagree
16. Media content represents American society accurately.
Strongly Agree Agree Neutral Disagree Strongly Disagree
17. Other people are more easily affected by the media than I am.
Strongly Agree Agree Neutral Disagree Strongly Disagree
18. I make time to watch my favorite television show every week.
Strongly Agree Agree Neutral Disagree Strongly Disagree

19. There should be more strict regulations of the news media.

Strongly Agree Agree Neutral Disagree Strongly Disagree

20. Free speech is important to me.

Strongly Agree Agree Neutral Disagree Strongly Disagree

21. Media literacy is an important skill for people to have.

Strongly Agree Agree Neutral Disagree Strongly Disagree

22. We learn a lot about our culture through the media.

Strongly Agree Agree Neutral Disagree Strongly Disagree

SECTION III – MULTIPLE CHOICE QUESTIONS

Please read the question and clearly mark your answer.

23. Which government agency monitors broadcasters?

- A) The Federal Trade Commission
- B) The Federal Communication Commission
- C) Legal Services Corporation
- D) National Telecommunication Commission
- E) I don't know

24. Which of the following media companies is owned by General Electric?

- A) NBC
- B) ABC
- C) CBS
- D) FOX
- E) I don't know

25. How do cable network providers gain access to a market?

- A) They are contracted out by the community
- B) They are government appointed
- C) They have to buy out or overtake the existing cable network provider
- D) They pay a community franchise fee
- E) I don't know

26. When was the Internet created?

- A) 1960s
- B) 1970s
- C) 1980s
- D) 1990s
- E) I don't know

27. Which of the following camera shots is used most often to convey emotional drama?
- A) A Close-up shot
 - B) A Medium shot
 - C) A Long shot
 - D) A Panning shot
 - E) I don't know
28. If a television show has a low rating, what does it mean?
- A) It is a popular show
 - B) It is an unpopular show
 - C) It is appropriate for all ages
 - D) It is appropriate for adults only
 - E) I don't know
29. What is a share?
- A) the number of people who come into contact with a single copy of a magazine
 - B) the percentage of homes tuned to a certain program compared to those actually using their set
 - C) the percentage of homes tuned to a certain program in a market being sampled
 - D) A measurement of people listening to the radio at a given time
 - E) I don't know
30. What is the practice of paying deejays or radio programmers to favor one song over others?
- A) propaganda
 - B) pay-per-play
 - C) pay-for-play
 - D) payola
 - E) I don't know
31. What is a shield law?
- A) A law that protects rape victims in the press
 - B) A law that allows a reporter to protect a confidential source
 - C) A law that requires a reporter to name a confidential source
 - D) A law that protects a newspaper from being sued for a reporter's error
 - E) I don't know

32. What information does a television or radio station use most often to set the price for their airtime?

- A) Ratings information
- B) Share information
- C) Total listenership/viewership information
- D) Target demographic information
- E) I don't know

SECTION IV – TRUE OR FALSE QUESTIONS

Please read the question and clearly mark your answer.

33. People often use media that reflect their existing beliefs. T F
34. Media can shape the way people view the rest of the world. T F

SECTION V – SHORT ANSWER QUESTIONS

Please answer these questions to the best of your knowledge. You may not know the answer, but give the question your best guess.

35. Name as many of the five rights guaranteed by the First Amendment you can.

36. What is primary difference between political and commercial speech?

37. What is 'libel'?

38. Define the term media literacy to the best of your ability.

39. What is the difference between libel and slander?

SECTION VI – DEMOGRAPHIC INFORMATION

Please provide the following information.

Gender: I am a Male Female I prefer not to answer.

Age: I am 20 years old or younger
 21 to 23 years old
 24 to 26 years old
 More than 26 years old
 I prefer not to answer.

Classification: I am a Freshman
 Sophomore
 Junior
 Senior
 Graduate Student

Major: My major is _____.

THE NEXT QUESTION IS FOR JOURNALISM STUDENTS ONLY.

Sequence: News/Editorial
 Broadcasting
 Public Relations
 Advertising
 Sports Media

VITA

Jordana Kathleen Burson

Candidate for the Degree of

Master of Science

Thesis: MEASURING MEDIA LITERACY AMONG COLLEGIATE JOURNALISM STUDENTS

Major Field: Mass Communication

Biographical:

Personal Data: Jordana Kathleen Burson (2/26/1984 -)

Education: Bachelor of Science, Broadcast Journalism
Oklahoma State University, Stillwater, Oklahoma, 2007

Completed the Requirement for the Master of Science degree in
Mass Communication at Oklahoma State University, Stillwater,
Oklahoma in July, 2010.

Experience: Multimedia Presentation Editor, Stan Clark Companies, Stillwater,
Oklahoma, 2008-2010

Live Sound Engineer, Board Operator, KRMG-AM, Tulsa,
Oklahoma, 2007.

Name: Jordana Kathleen Burson

Date of Degree: July, 2010

Institution: Oklahoma State University

Location: Stillwater, Oklahoma

Title of Study: MEASURING MEDIA LITERACY AMONG COLLEGIATE
JOURNALISM STUDENTS

Pages in Study: 98

Candidate for the Degree of Master of Science

Major Field: Mass Communication

Scope and Method of Study: The purpose of this study was to measure and compare media literacy knowledge structure scores and attitudes among collegiate journalism students with those of non-journalism students. The study utilized quantitative data analysis. Data were collected using an online survey as well as convenience sampling methods.

Findings and Conclusions: The study found that collegiate journalism students scored higher on the media literacy survey than non-journalism students, but that overall media literacy knowledge among the sample was low. Scores and attitudes of journalism students and students in journalism-related majors were also compared. The findings suggest that journalism majors may use the media for more specific purposes than students in other majors. A potential third-person effect was identified among journalism students when comparing scores on the media literacy survey with attitudes about media literacy. Potter's (2004) cognitive theory of media literacy was utilized to provide explanation of the findings.

ADVISER'S APPROVAL: _____