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# The Usefulness of a News Media Literacy Measure in Evaluating a News Literacy Curriculum

Adam Maksl
*Indiana University Southeast*

Stephanie Craft
*University of Illinois*

Seth Ashley
*Boise State University*

Dean Miller
*Stony Brook University*

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**Adam Maksl**
School of Social Sciences
Indiana University Southeast

**Seth Ashley**
Department of Communication
Boise State University

**Stephanie Craft**
Department of Journalism
University of Illinois

**Dean Miller**
Center for News Literacy
Stony Brook University

The question "What is news literacy?" has been asked and answered in a number of ways, as scholars, teachers, librarians and journalists have sought to address the confusion resulting from the increasingly crowded digital information sphere. Concerns center on how the difficulty people face in differentiating reliable, credible information from unverified and biased information threatens their ability to participate in democratic life. Approaches to training and curriculum aimed at minimizing that difficulty have included standalone courses, modules in existing courses, after-school programs, and online exercises aimed at a variety of populations, from K-12 to college students to adults. Given this wide range of settings and populations, it is perhaps not surprising that the content of news literacy instruction also has ranged widely. A series of articles in the *Columbia Journalism Review* covering the 2014 National News Literacy Summit (the coverage and the summit were sponsored by the McCormick Foundation) makes clear that beyond shared civic goals, there remains a lot of diversity and, even, disagreement about what news literacy is and what efforts to enhance it should include (e.g. Jolly, September 4, 2014; Fry, 2015; Hobbs, 2010b). The lack of a common understanding has hindered efforts to assess the effectiveness of different approaches to news literacy instruction and to examine the relationship between news literacy and achievement of those shared civic goals. A newly developed and validated measure of news media literacy may offer a way to help fill this gap.

## Theory and Literature

*Conceptualizing News Literacy.* If a definition of news literacy is the destination, then the journey to reach it passes through several other literacy neighborhoods. Media, information, digital, and civic literacy all share conceptual terrain with news literacy. The overlap is especially evident with media and information literacy, which Livingstone, Van Couvering & Thumim (2008, p. 107) differentiate as follows: "Media literacy sees media as a lens or window through which to view the world and express oneself, while information literacy sees information as a tool with which to act upon the world." Building on Livingstone's conceptualization, Malik, Cortesi, & Gasser (2013, p. 7) note that while news literacy is "at the intersection" of media and information literacy, its connection to civic engagement and its focus on a particular type of message – news – are how its proponents distinguish it from those neighbors. The best option, they argue, is to define news literacy in terms of what it meant to achieve. If "empowered citizens" are the goal, then a definition of news literacy should include: "1) an understanding of the role news plays in society … 2) motivation to seek out news … 3) the ability to find/identify/recognize news … 4) the ability to critically evaluate news … 5) the ability to create news" (Malik, et al, 2013, pp. 8-9).

The five elements Malik et al consider essential to defining news literacy echo the discussion of what constitutes media literacy in its extensive research literature. While it is a "fractured field," (Fleming, 2010, p. 132) media literacy, generally speaking, encompasses definitions and instructional strategies that can be roughly categorized as emphasizing either the interpretation or the creation of messages. The former, sometimes called the "protectionist" approach, focuses on understanding how media messages are constructed and the skills needed to interpret them; the latter, sometimes called the "empowerment" approach, focuses on the skills needed to participate in message creation and distribution (see Hobbs, 2011; Mihailidis, 2011; Potter, 2010; Potter, 2004). These categories can be considered as complementary, not mutually exclusive. A comprehensive review of media literacy research summarized and categorized existing definitions as entailing "the awareness of the different aspects of the production of media content, the influence of the media on its user and its producers, and the way in which users deal with the media. Media literacy encompasses critical attitudes and/or behaviors toward the media, as well as any resulting abilities regarding the media that results from such awareness" (Rosenbaum et al, 2008, p. 22). This focus

on awareness, attitudes and the behaviors informed by them is reflected in the protectionist approach which, in the case of Potter (2010, 2004), has a strongly cognitive flavor that emphasizes cultivating skills in interpreting messages through enhancing one's knowledge about media and motivations to process media messages.

*Measuring Literacy.* Research addressing educational interventions that put definitions into action in a variety of settings demonstrates that they are often successful and have had positive effects on outcomes such as media knowledge, criticism, perceived realism, influence, behavioral beliefs, attitudes, self-efficacy, and behavior (See Jeong et al., 2012, for a meta-analysis). In some studies, news media content has been specifically explored. In an experiment related to coverage of biofuels, news media literacy training was found to reduce hostile interpretations of media, increase perceptions of news story credibility, and increase trust in the media generally and the news specifically (Vraga et al, 2012). Qualitative and quantitative research also suggests media literacy training can reduce the impact of racial and ethnic stereotypes found in news media content (Scharrer & Ramasubramanian, 2015). Overall, however, the range of ad hoc approaches for assessing the effects of media education, employing different definitions and measures and failing to establish one or more types of validity, make it difficult to compare results across studies or over time.

*A Model of News Literacy.* Potter (2004) brought together a range of conceptualizations in the research literature to create a cognitive model of media literacy with four components: knowledge structures, personal locus, competencies and skills, and information processing. The knowledge structures component includes knowledge about the media industry, media content and effects as well as knowledge about the "real world" and the self. The personal locus is the set of needs, drives and intellectual abilities an individual brings to the tasks of drawing on those knowledge structures and, ultimately, processing and making meaning from the information accessed. Compared with other conceptualizations of media literacy, this cognitive model treats media literacy as requiring more "conscious processing of information" and "preparation for exposures" to media messages (Potter, 2004, p. 68). The model components build on one another. Regarding the knowledge structures and personal locus, for example:

> A full awareness in these five areas [industry, content, effects, self and world] enriches the personal locus, because it gives the person a full range of potentialities. When people understand the messages and the motivations in the industries that produce them, they can understand better the process of influence. They can plan more realistic goals for their exposures. When people recognize the effects that are having a positive influence on them, they can do things to increase those effects (Potter, 2004, p. 95).

Potter's is among the broad frameworks of media literacy that scholars and educators are beginning to apply to the emerging subfields of "news media literacy" (Hobbs, 2010a, 2010b; Mihailidis, 2011) and "public relations literacy" (Holladay & Coombs, 2013) defined as a variant of media literacy that would "help people to recognize when they are encountering public relations messages, how to dissect those messages and how to create their own advocacy messages" (Holladay & Coombs, 2013, p. 126). Recent efforts to develop a measure of news media literacy (Author, 2015; Author, 2013) adapted Potter's model to the domain of news, positing that news media literate individuals think deeply about media experiences, believe they are in control of media's influence, and have high levels of basic knowledge about media content, industries and effects. The resulting scale incorporates items related to mindful and automatic information processing, perceived control over media influences, and knowledge regarding the institutions that produce news, the way in which the content of the news is produced, and the awareness of possible effects of that content on people. A test of the scale with teenagers showed that it was able to differentiate between high and low levels of news media literacy, such that highly news literate teens showed greater intrinsic motivation to consume news, were more skeptical of news media, and were more knowledgeable about current events than their less news media literate counterparts (Author, 2015).

*Evaluating News Literacy Instruction Outcomes.* The news literacy curriculum at Stony Brook University in many ways aligns with the adapted model of news media literacy, offering an opportunity to both evaluate the effectiveness of the curriculum and further validate the scale. Stony Brook University's undergraduate News Literacy course, developed in consultation with faculty in psychology, political science, philosophy and the University Libraries, has enrolled more than 10,000 students from across the university since its 2007 launch. Described as "the crucial skill for citizens of the digital age," Stony Brook's Center for News Literacy defines news literacy as "the ability to use critical thinking skills to judge the reliability and credibility of news reports from all

media: print, TV, radio or the web" (The Center, n.d. a). While this description emphasizes the acquisition of skills, understanding concepts such as the importance of a free press and the responsibilities of news consumers is also among the key objectives of the course. Also, critical thinking ability is connected specifically to the demands of citizenship in the course outcomes listed in the model syllabus posted on the website (The Center, n.d. b). Fleming (2014) likens Stony Brook's approach to news literacy instruction to a music appreciation course. In both, the purpose is to give students an overview of styles and genres and to train them how to consume with greater understanding. Also, both approach the cultivation of appreciation as essential to industry survival by stimulating audience demand for a particular kind of product (p. 159). Course topics include understanding why people seeks news, how audiences and editors decide what is news, differences between opinion and news, detecting bias, historical and current efforts to control information and related First Amendment issues, how to search for reliable, "actionable" information and how to deconstruct news reports, including evaluating sources and understanding the difference between verification and information (The Center, n.d. b).

Assessments of the course suggest it has been somewhat more effective in addressing concepts than skills. In a three-wave panel survey, students who took the News Literacy course reported higher news media consumption and more favorable impressions of the news media – a greater belief that the media protect democracy, are non-biased, and wield an appropriate amount of influence in governmental affairs – compared with a control group (Weber, 2012, p. 5). The study also included several experiments in which respondents were asked to deconstruct news reports in terms of reliability and accuracy. Results were mixed. Students who had taken the course performed significantly better on some but not all of the deconstruction tasks, and the effect of taking the course diminished over time (Weber, 2012).

The research by Weber (2012) and Fleming (2014) evaluates Stony Brook's course according to its stated objectives and criteria. That is, those studies are concerned with the extent to which the course accomplishes what it set out to accomplish and not necessarily how it might stack up on external measures of news literacy. Indeed, while the course's emphasis on critical thinking and information processing aligns with Potter's cognitive approach, the curriculum does not include instruction that the knowledge structures in Potter's model would seem to require. Specifically, the course addresses neither issues of media ownership nor the commercial context of journalism in the United States more generally (Fleming, 2014). That said, the success of the course in the conceptual realm, if not consistently the skills realm, makes it an excellent candidate for further validating a general measure of news media literacy encompassing knowledge structures and the personal locus, as in Potter's model.

Hypotheses

H1: Students who had taken the News Literacy course will have increased news media literacy scores relative to those who had not taken the course.

H2: As the number of semesters since taking the course increases, students' levels of news media literacy will decrease.

H3: Students who had taken the News Literacy course will be more motivated for news consumption relative to those who had not taken the course.

H4: Students who had taken the News Literacy course will be more knowledgeable about current events relative to those who had not taken the course.

Method
We conducted a web survey of students at Stony Brook University in the spring of 2014. A random sample of 4,000 students was sent an email message and two reminders to take the survey; 748 responded. After eliminating 203 incomplete responses, 545 responses remained for analysis, yielding an effective response rate of 13.6%.

Students were asked if they had taken the News Literacy course at Stony Brook University, and if they had, in which semester they had been enrolled. This variable was transformed into the number of semesters since they had taken the course. This course is an option in the university's general education curriculum, open to and taken by journalism majors and non-majors alike.

The first two hypotheses involve levels of news media literacy. To measure this concept, we used an instrument that operationalizes news media literacy as a multi-dimensional construct incorporating three elements that has been validated in previous research (See Appendix; Author, 2015). The first, mindful versus automatic thought processing, was measured using a five-item need for cognition scale ($\alpha$ =.745) used in previous research (Epstein et al., 1996). Items included "I prefer complex to simpler problems" and "I don't have to do a lot of thinking." Respondents were asked to respond to each of the statements by saying how much they agreed with it on a five-point scale (1=strongly disagree; 5=strongly agree). Items were coded so that a higher score indicated greater mindful thought processing. A mean was computed to develop an overall score.

The second dimension, called media locus of control (MLOC), is the degree to which one perceives herself as being in control of whether the news media influence her. It was measured using a six-item scale ($\alpha$=.608) where respondents were asked their level of agreement with items like "I am in control of the information I get from the news media" and "If I pay attention to different sources of news, I can avoid being misinformed." A higher score indicated a more internal media locus of control. A mean was computed to develop an overall score.

Finally, the third-dimension measures knowledge about the institutions that produce news, the way in which the content of the news is produced, and the awareness of possible effects of that content on people. Following Potter's model (2004), this is referred to as "media knowledge structures." Sixteen multiple-choice questions were presented to respondents. For example, questions included whether respondents knew that most American news media are for-profit businesses and that political campaigns tend to be covered like horse races instead of focusing on in-depth issues about the candidates. An index was computed by summing the number of correct answers for each respondent.

The third hypothesis involves the measurement of motivation for news consumption. Questions measuring motivations were based on Self Determination Theory, used by psychologists to study the extent to which one sees an activity as part of his or her core self-concept (Ryan & Deci, 2002; Grolnick, Deci, & Ryan, 1997). We adapted two items from previous work (Koestner, Losier, Vallerand, & Carducci, 1996; Vallerand & O'Connor, 1989) to determine the degree to which individuals are motivated for news consumption. Specifically, respondents were asked the extent to which they agreed (1=strongly disagree; 5=strongly agree) with each item. The item measuring intrinsic motivation was "I follow the news because I like to." A higher score indicated a respondent was more intrinsically motivated for news consumption. Another item measured the degree to which a respondent is unmotivated: "I don't see what the news does for me." A higher score on that item means a respondent was unmotivated for news use.

The fourth hypothesis posits a relationship between taking the News Literacy course and current events knowledge. The latter was measured by asking a series of seven current events questions, adapted from the then-current Pew Research Center's (2013) News IQ Quiz. Items included, for example, identifying a photo of Edward Snowden, knowing who the typical swing vote was on the Supreme Court, knowing what the term "common core" referred to, and knowing what Google Glass was. Respondents were presented with multiple-choice questions, and the total number of correct answers for each respondent was recorded as an overall current events knowledge score.

Finally, some analyses included statistical controls, including age, gender, and parental education. The latter was asked as a proxy for socioeconomic status. Students were asked to respond with the highest level of education at least one of their parents received.

Results

The first hypothesis posited that students who had taken the course were more likely to show higher news media literacy scores. We used multivariate analysis of covariance (MANCOVA) to test this hypothesis, which is a test that is used to test effects on multiple dependent variables simultaneously while controlling for covariates. The MANCOVA test indicated that there was a significant multivariate effect between the groups for the combined news media literacy dependent variables ($\lambda$=.904 F (3,500) = 17.71, p < .001). Those who had taken the news literacy course scored significantly higher on the news media literacy scale, though univariate analyses showed that only the knowledge structure (F(1,502)=29.52, p < .001) and media locus of control (F(1,502) =21.05, p < .001) dimensions were statistically different between those who had taken the course and those who had not. The difference between

the groups on the third dimension, which measured mindful versus automatic thought processing, was not statistically significant ($F(1,502) = .34$, $p = .561$). Nonetheless, because of the significant multivariate effect, the first hypothesis was supported.

The second hypothesis posited that increased time since taking the course would relate to lower news media literacy scores, essentially that any effect of taking the course would "wear off" over time. Multivariate linear regression, an extension of linear regression that allows for multiple dependent variables, showed that the number of semesters since taking the news literacy course had no significant multivariate effect on news media literacy ($\lambda=.919$ F $(12,458) = 1.24$, $p = .250$). Therefore, Hypothesis 2 was not supported.

The third hypothesis posited that those who had taken the news literacy course would be more motivated for news consumption. To test this hypothesis, we used simple analysis of covariance (ANCOVA) to test the effects of an independent variable on a single dependent variable while controlling for covariates. Indeed, those who had taken the course reported higher levels of agreement with the statement "I follow the news because I like to," which measures intrinsic motivation ($M_{Taken\ class} = 3.63$, $SEM_{Taken\ class} = .08$, $M_{Not\ taken\ class} = 3.39$, $SEM_{Not\ taken\ class} = .06$), and that difference was statistically significant ($F(1,505) = 6.95$, $p < .01$). Additionally, those who had not taken the class were more likely to agree with the statement "I don't see what news does for me" ($M_{Taken\ class} = 1.90$, $SM_{Taken\ class} = .07$, $M_{Not\ taken\ class} = 2.33$, $SEM_{Not\ taken\ class} = .05$), and that difference was statistically significant ($F(1,506) =26.44$, $p < .001$). This measures amotivation, or the lack of motivation. In other words, those who had taken the course are both more motivated and more intrinsically motivated for news consumption compared to those who had not taken the course. Therefore, Hypothesis 3 was supported.

The fourth hypothesis stated that those who had taken the course would have greater current events knowledge compared to those who had not taken the course. We also use ANCOVA to test this hypothesis. Indeed, those who had taken the course correctly answered more current events questions compared to those who had not taken the course ($M_{Taken\ class} = 8.27$, $SEM_{Taken\ class} = .18$, $M_{Not\ taken\ class} = 7.61$, $SEM_{Not\ taken\ class} = .13$), and the difference was statistically significant ($F(1,509) =8.91$, $p < .01$). Hypothesis 4 was supported.

Discussion

The news media literacy of students who had taken a news literacy course was greater than those who had not taken the course – a perhaps unsurprising but nevertheless important finding because of its implications for theorizing and curriculum development in the news literacy arena. That students performed better than non-students on a *general* barometer of literacy, the News Media Literacy scale, and not just assessments aimed at course-specific goals further validates the NML scale and points to its potential utility in program planning and assessment. Furthermore, the performance of Stony Brook's News Literacy students relative to non-students affirms the value of Stony Brook's curriculum in contributing to higher news media literacy and greater motivation to consume news. The News Literacy course curriculum focuses on evaluating the evidence, credibility, and reliability of news accounts; distinguishing between news and opinion-based journalism; identifying media and audience bias; discussing the connection between news consumption and pro-social civic outcomes; and assessing the impact of digital technologies on news (The Center, n.d. b).

That the News Literacy students scored higher on the NML scale is noteworthy, given that the curriculum does not explicitly address (in fact, even expressly avoids) issues related to media ownership and the commercial context for journalism in the United States (Fry, 2015; Fleming, 2014; McManus, 2012) that many scholars deem essential to news media literacy (e.g., Hobbs, 2010b) and that are reflected in the knowledge structures component of the NML scale. Similarly, the News Literacy students' scores on the subscale related to "locus of control" were higher than non-students' scores, again despite any explicit attention to this topic in the curriculum. Certainly, the overall thrust of the News Literacy course is to apply critical thinking skills to news consumption, so an enhanced sense of control seems a logical byproduct of such instruction. The lack of a significant difference between News Literacy students and non-students on the "mindful versus automatic thought processing" subscale of the NML is perhaps attributable to the fact that need for cognition is a stable personality trait unlikely to change over the course of a semester (Cacioppo, Petty, Feinstein, & Jarvis, 1996). In contrast to a previous evaluation of Stony Brook's curriculum (Weber, 2012), this study did not show that the effect of having taken the course diminished over time. We cannot

reconcile these contradictory findings (and, to be sure, the methods were not identical). Because these recent data suggest the effects of taking the News Literacy course persist for at least a year and, therefore, that the course might help to establish positive habits related to news, further research is certainly warranted.

One limitation of the study is that the News Literacy course was one of a variety of options students could take to meet a university general education requirement. Therefore, students interested in journalism and media may have been likely to self-select into this course over others. Additionally, this survey was only administered to students after they had completed the class. That means that we are unsure of the magnitude of the effect; in other words, how much more news media literate were students in the class after they had taken it compared to the first week in the class. Future research should use pre/post-test methods to answer this question. Nonetheless, this research shows some effectiveness of the news literacy class. Additionally, it provides concurrent validity for the News Media Literacy scale, showing that those who have taken a course in News Literacy indeed were more News Media Literate than those who had not. Scholars should continue to use this tool to assess the effectiveness of other news literacy curricula.

The findings related to the impact of taking the News Literacy course on students' motivations to consume news and their current events knowledge is good news for those who consider news media literacy to be a vital element of participation in public life and crucial to the survival of news organizations. If learning about news increases motivation for news consumption – even after the course is over – that lends support to efforts to deploy news media literacy instruction in K-12 and higher education settings. Indeed, this underscores the "demand side" approach – create demand for quality journalism by cultivating the ability to recognize quality – Stony Brook and others have offered as a rationale for promoting news literacy instruction (Fleming, 2014). It sends a signal to news companies about the role news media literacy initiatives might play in their efforts to expand their audiences.

## Appendix

*News Media Literacy scale*

<u>Automatic vs. Mindful Thought Processing</u>

On a scale of 1 to 5 where 1 is strongly agree and 5 is strongly disagree, please tell me how much you agree or disagree with this statement.

1. I don't like to have to do a lot of thinking. (reverse-coded)

2. I try to avoid situations that require thinking in depth about something. (reverse-coded)

3. I prefer to do something that challenges my thinking abilities rather than something that requires little thought.

4. I prefer complex to simple problems.

5. Thinking hard and for a long time about something gives me little satisfaction. (reverse-coded)

<u>Media Locus of Control</u>

On a scale of 1 to 5 where 1 is strongly agree and 5 is strongly disagree, please tell me how much you agree or disagree with this statement.

1. If I am misinformed by the news media, it is my own behavior that determines how soon I will learn credible information.

2. I am in control of the information I get from the news media.

3. When I am misinformed by the news media, I am to blame.

4. The main thing that affects my knowledge about the world is what I myself do.

5. If I pay attention to different sources of news, I can avoid being misinformed.

6. If I take the right actions, I can stay informed.

News Media Knowledge Structures

1. Most media outlets in the United States are: a.) For-profit business (correct); b.) Owned by the government; c.) Non-profit businesses; d.) Don't know

2. If you wanted to get a job as a news reporter in the US, you would need to get a license from… a.) The Federal Communications Commission; b.) The Federal Trade Commission; c.) Society of Professional Journalists; d.) News reporters are not required to be licensed (correct); e.) Don't know

3. In 1983, around 50 companies owned most of the media outlets Americans consumed. How many companies own most of the media we consume today? a.) 100; b.) 50; c.) 25; d.) 5 (correct); e.) Don't know

4. Which of the following cable news networks is generally thought to have a politically conservative bias? a.) CNN; b.) Fox News (correct); c.) MSNBC; d.) MTV News; e.)Don't know

5. Which of the following news outlets does NOT depend primarily on advertising for financial support? a.) CNN; b.) PBS (correct); c.) The New York Times; d.) Newsweek magazine; e.) Don't know

6. When it comes to reporting the news, the main difference between a website like Google News and a website like CNN.com is that: a.) Google does not have reporters who gather information, while CNN does (correct); b.) Google focuses on national news, while CNN focuses on local news; c.) Google has more editors than CNN does; d.) Google charges more money for news than CNN does; e.) Don't know

7. Who has the most influence on what gets aired on the local TV news? a.) Individual reporters; b.) The anchor, the person reading the news; c.) The cameraman; d.) The producer/editor (correct); e.) Don't know

8. The amount of racial/ethnic minority coverage in the news: a.) Accurately reflects the proportion of minorities in the U.S. population; b.) Under-represents reflects the proportion of minorities in the U.S. population (correct); c.) Over-represents reflects the proportion of minorities in the U.S. population; d.) Don't know

9. Coverage of election campaigns in the news usually centers on: a.) Who's winning (correct); b.) In-depth analysis of where candidates stand on the issues; c.) The candidates' educational backgrounds; d.) Don't know

10. One common criticism of the news is that it is not objective. What do people who make that criticism typically mean by it? a.) The reporter gives only the facts about the story; b.) The reporter puts his or her opinion in the story (correct); c.) The reporter's story relies too much on the opinions of people who are neutral; d.) The reporter doesn't make the purpose of the story clear; e.) Don't know

11. Writing a press release is typically the job of: a.) A reporter for CNN.com; b.) A spokesperson for Coca-Cola (correct); c.) A lawyer for Yahoo!; d.) A producer for NBC Nightly News; e.) Don't know

12. Most people think the news has: a.) A greater effect on themselves than other people; b.) A greater effect on other people than themselves (correct); c.) The same effect on themselves as others; d.) Does not have any effects on anyone; e.) Don't know

13. People who watch a lot of television news often tend to think the world is: a.) More violent and dangerous than it actually is (correct); b.) Less violent and dangerous than it actually is; c.) Just as violent and dangerous as it actually is; d.) Don't know

14. If a topic gets a lot of coverage in the news, people who pay attention to the news are: a.) More likely to think the topic is important (correct); b.) Less likely to think the topic is important; c.) Neither more nor less likely to think the topic is important; d.) Don't know

15. Most news outlets depend on advertising to make money. What is a possible effect of this? a.) News could encourage people to buy things they don't need; b.) News could emphasize things that aren't really important; c.) All of the above (correct); d.) None of the above. There are no effects; e.) Don't know

# References

Author (2015). Title omitted for blind review. Journal article

Author (2013). Title omitted for blind review. Journal article

Capioppo, J. T., Petty, R. E., Feinstein, J. A., & Jarvis, W. B. G. (1996). Dispositional differences in cognitive motivation: The life and times of individuals varying in need for cognition. *Psychological Bulletin, 119*(2), 197-253. doi:10.1037/0033-2909.119.2.197

The Center for News Literacy (n.d. a) What is news literacy? Retrieved from www.centerfornewsliteracy.org

The Center for News Literacy (n.d. b) Model syllabus. Retrieved from http://www.centerfornewsliteracy.org/wp-content/uploads/2012/04/Model-Syllabus-JRN101.pdf

Fleming, J. (2014). Media literacy, news literacy, or news appreciation? A case study of the news literacy program at Stony Brook University. *Journalism and Mass Communication Educator* 69(2).

Fry, K. G. (2015) "Developing media literacy: Managing fear and moving beyond," *Journal of Media Literacy Education*, 6(3), 65 -70.

Grolnick,W. S., Deci, E. L. & Ryan, R. M. (1997). Internalization within the family: The self-determination theory perspective. In *Parenting and children's internalization of values*, edited by Joan E. Grusec and Leon Kuczynski, 135-161.  Hoboken, NJ: Wiley.

Hobbs, R. (2010a). *Digital and media literacy: A plan of action.* Washington, D.C.: The Aspen Institute.

Hobbs, R. (2010b). News literacy: What works and what doesn't. Paper presented at Association for Education in Journalism and Mass Communication conference, Denver, CO.

Hobbs, R. (2011). What a difference ten years can make: Research possibilities for the future of media literacy education. *Journal of Media Literacy Education, 3*(1), 29-31.

Holladay, S. J. & Coombs, W. T. (2013). Developing critical consumers of public relations. *Public Relations Inquiry, 2*(2), 125-146.

Jeong, S., Cho, J. & Hwang, Y. (2012). Media literacy interventions: A meta-analytic review. *Journal of Communication 62*(3), 454–472.

Jolly, J. (September 4, 2014). News literacy versus media literacy. *Columbia Journalism Review*. http://www.cjr.org/news_literacy/news_literacy_vs_media_literac.php

Koestner, R., Losier, G. F., Vallerand, R. J. & Carducci, D. (1996). Identified and introjected forms of political internalization: Extending self-determination theory. *Journal of Personality and Social Psychology* 70(5), 1025-1036.

Livingstone, S., Van Couvering, E., & Thumim, N. (2008). Converging traditions of research on media and information literacies: Disciplinary, critical, and methodological issues. In J. Coiro, M. Knobel, C. Lackshear & D. J. Leu (Eds.), *Handbook of research on new literacies* (pp. 103-132). New York: Lawrence Erlbaum Associates, Inc.

Malik, M., Cortesi, S. & Gasser, U. (2013). The challenges of defining 'news literacy'. Berkman Center for Internet & Society. Retrieved [March 27, 2015] from http://dx.doi.org/10.2139/ssrn.2342313

McManus, J. H. (2012). *Detecting Bull: How to identify bias and junk journalism in print, broadcast and on the wild web.* Sunnyvale, CA: The Unvarnished Press.

Mihailidis, P. (2011). New civic voices and the emerging media literacy landscape. *Journal of Media Literacy Education 3*(1), 4-5.

Pew Research Center (2013, September 5). What the Public Knows – In Words, Pictures, Maps and Graphs [Blog post]. Retrieved from http://www.people-press.org/2013/09/05/what-the-public-knows-in-words-pictures-maps-and-graphs/

Potter, W.J. (2010). The state of media literacy. *Journal of Broadcasting & Electronic Media, 54*(4). 675-696.

Potter, W. J. (2004). *Theory of Media Literacy: A Cognitive Approach*. Thousand Oaks, CA: Sage.

Rosenbaum, J. E., Beentjes, J. W. J., & Konig, R.P. (2008). Mapping media literacy: Key concepts and future directions. In Beck, C. S. (ed.) *Communication Yearbook 32*. New York: Routledge, pp. 313-355.

Ryan, R. M., & Deci, E. L. (2002). Overview of self-determination theory: An organismic dialectical perspective. In *Handbook of self-determination research*, edited by Richard M. Ryan and Edward L. Deci. Rochester, N.Y.: The University of Rochester Press.

Scharrer, E. & Ramasubramanian, S. (2015). Intervening in the Media's Influence on Stereotypes of Race and Ethnicity: The Role of Media Literacy Education. *Journal of Social Issues, 71*(1), 171-185.

Vallerand, R. J., & O'Connor, B. P. (1989). Motivation in the elderly: A theoretical framework and some promising findings. *Canadian Psychology* 30, 538-550.

Vraga, E., Tully, M., Akin, M. & Rojas, H. (2012). Modifying perceptions of hostility and credibility of news coverage of an environmental controversy through media literacy. *Journalism, 13*(7), 942-959.

Weber, C. (2012). News Literacy Assessment. [Report prepared for The Center for News Literacy]. Retrieved from: http://www.centerfornewsliteracy.org/wp-content/uploads/2012/04/2012Assessment.pdf)