A Comparative Analysis of Media Literacy between Agricultural Communications Majors and Non-Majors

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Mass media is an outlet used to convey information to the public; therefore, media literacy is crucial today as individuals consistently engage with multiple forms of media. Media literacy can impact how students consume the news, develop news media skepticism, and understand current events (Maksl, et al., 2015). Media literacy education is essential for individuals to evaluate their knowledge, attitudes, and beliefs that contribute to their ability to identify biased and/or false information (Vraga & Tully, 2021). Media literacy not only prepares students to be critical consumers of information, but also a more informed and discerning member of society (Vraga & Tully, 2021). Agricultural communications students are given an opportunity to communicate fact-based information about agricultural sciences topics; therefore, their media literacy is critical in relation to the public's understanding of science. While all college of agriculture students need media literacy skills to be productive members of society, agricultural communications students would be expected to demonstrate higher levels of media literacy due to their major. However, media literacy has historically not been prioritized in agricultural communications curricula (Leal et al., 2019; Leal et al., 2020). Therefore, there is a need to explore if differences in media literacy exist between agricultural communications majors and non-majors, which supports priority number three of the national research agenda (Stripling & Ricketts, 2016).

Conceptual Framework

The Media Literacy Triangle (Essential Framework, 2021) provided the conceptual framework for this study. According to this model, media literacy has three components: media text, audience, and production. When evaluating students' media literacy, it is important to ensure that each facet of media literacy is taught. While media text and audience are important concepts for students to analyze, focusing on the production side of the triangle is crucial to genuine understanding and discernment when it comes to evaluating media sources (Essential Framework, 2021). The production side of the media literacy triangle was specifically explored in this study, which encompasses biases in the media and the framing used to present information to consumers (Essential Framework, 2021).

Purpose & Objectives

The purpose of this study was to compare media literacy between agricultural communications majors and non-majors. The following objectives guided this study: (1) describe agricultural communication majors' and non-majors' trust in the media and media literacy, and (2) compare agricultural communication majors' and non-majors' trust in the media and media literacy.

Methods

To fulfill the purpose of this research, a quantitative survey instrument was distributed to students enrolled in a 300-level agricultural communications class at the University of Nebraska-Lincoln (UNL) as part of a course assignment focused on media literacy, agricultural literacy, and science literacy. This *Literacy Reflection* assignment asked students to take a short survey about their media use and the previously described literacy areas, and write a short reflection based on their scores. This pilot data were collected over two semesters (Fall 2020 and Fall 2021) from the same agricultural communications course that served students across the college of agriculture. Students in the class were mostly juniors and seniors, and the class did not require an agricultural communications pre-requisite to enroll. Data for this study were collected at the

beginning of the fall semester for both classes. A total of 53 respondents agreed to participate in the study (23 out of 31 in 2020 and 30 out of 30 for 2021; 86.89% participation rate). In the sample, 49.1% (n = 26) were agricultural communications majors and 50.9% (n = 27) were non-majors.

The survey instrument consisted of 33 questions related to literacy concepts - trust in the media and media literacy questions were analyzed for this research. These constructs were adapted from Maksl et al. (2015). Trust in media was measured with an 8-item, 5-point Likert-type scale (Cronbach's α = .80), that ranged from 1 = *strongly disagree* to 5 = *strongly agree*. Media literacy was measured with nine knowledge questions about news media production with the option of "don't know." The construct was treated as a count variable, and the Kuder-Richardson formula (KR20) was used to establish reliability. The initial reliability was .65, but the deletion of items did not improve reliability. This reliability is still considered acceptable for a social science construct (Nunnally, 1978). All data were analyzed in SPSS and independent t-tests were used to compare agricultural communications majors to non-majors across variables of interest.

Findings

When asked about their level of trust, both agricultural communications majors (M = 2.29, SD = 0.50) and non-majors (M = 2.27, SD = 0.62) disagreed they trusted the media. On average, agricultural communications majors answered 5.46 (SD = 2.12) media literacy questions correctly out of nine compared to 5.52 (SD = 1.89) correct answers from non-majors. There were no statistically significant differences between agricultural communications majors and non-majors across trust in the media ($t(51) = .13$, $p = .90$) or media literacy ($t(51) = -.10$, $p = .92$).

Conclusions, Implications, & Recommendations

The findings from this pilot study demonstrated UNL agricultural communication majors and non-majors enrolled in the agricultural communications class possessed the same level of trust in the media and media literacy. The agricultural communications students would be expected to possess more knowledge or trust of the media compared to non-majors, but the uniform responses demonstrated that factors other than major appear to influence media literacy. This finding may reflect the lack of media literacy concepts prioritized in agricultural communications programs (Leal et al., 2019; Leal et al., 2020), or may be tied instead to regional culture and generational values. Additionally, the respondents possessed a moderate level of media literacy within the context of production (Essential Framework, 2021) despite their low levels of trust in the media. Considering agricultural communications students will likely work with the media in the future, this low level of trust could be detrimental to future media relations. Since the respondents in the study were mostly upperclassmen, introducing news media literacy concepts earlier in agricultural communication curriculum could help increase students' trust and media literacy prior to graduation. Prioritizing this information earlier in curriculum and more often throughout the entirety of the program may positively influence these findings as well. Because these findings are not generalizable, this study should be replicated at other universities to determine if these results are isolated to UNL. Additionally, interviewing agricultural communication students and non-agricultural communication students about how they feel media literacy curriculum should be integrated into their programs would allow for student perspectives to be at the forefront of change. Future research regarding effective curriculum for integrating media literacy and media trust in colleges of agriculture would also strengthen the impact of this research.

References

Essential framework (2021). *Association for Media Literacy* https://aml.ca/resources/essential-framework/

Leal, A., Lawson, K. M., Telg, R. W., Rumble, J. N., Stedman, N. L., & Treise, D. (2020). Technically speaking: Technical skills needed for agricultural communication baccalaureate graduates. *Journal of Applied Communications*, *104*(3). https://doi.org/10.4148/1051-0834.2339

Leal, A., Telg, R. W., Rumble, J. N., Stedman, N. L., & Treise, D. M. (2019). Exploring beyond the obvious: Social skills needed for agricultural communication baccalaureate graduates. *Journal of Applied Communications*, *103*(2). https://doi.org/10.4148/1051-0834.2188

Maksl, A., Ashley, S., & Craft, S. (2015). Measuring news media literacy. *Journal of Media Literacy Education*, *6*(3), 29-45. https://digitalcommons.uri.edu/jmle/vol6/iss3/3

Nunnally, J. C. (1978). *Psychometric theory*. McGraw-Hill.

Stripling, C. T., & Ricketts, J. C. (2016). Research priority 3: Sufficient scientific and professional workforce that addresses the challenges of the 21st century. In T. G. Roberts, A. Harder, & M. T. Brashears (Eds.), *American Association for Agricultural Education national research agenda: 2016-2020.* Department of Agricultural Education and Communication. `

Vraga, E. K., & Tully, M. (2021). News literacy, social media behaviors, and skepticism toward information on social media. *Information, Communication & Society*, *24*(2), 150–166. https://doi.org/10.1080/1369118x.2019.1637445