

**Incorporating Information Literacy Skills into Agricultural Coursework**

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### **Introduction / Need for Innovation**

College students have an increased responsibility to use information ethically and produce new information (Association of College & Research Libraries [ACRL], 2015). Further, “faculty have a greater responsibility in designing curricula and assignments that foster enhanced engagement with the core ideas about information and scholarship within their disciplines” (ACRL, 2015, p. 7). As such, ACRL’s *Framework for Information Literacy for Higher Education* (2015) offers a vision of information literacy that prepares students to be creators of information, not just consumers, who can engage in discourse in diverse, collaborative spaces. Throughout the agriculture industry, where ideals and opinions are scattered, agricultural literacy is a concern. Agricultural literacy is often defined in two ways. One definition, proposed by Frick et al. (1991), is “possessing knowledge and understanding of food and fiber systems” (p. 52). The other, proposed by Meischen and Trexler (2003), is “knowledge and understanding of agriculturally related scientific and technologically based concepts and processes required for personal decision making, participating in civic and cultural affairs, and economic productivity” (p. 44). These definitions reference disciplinary literacy. According to Chapman and Lindner (2018), “agricultural literacy is a growing issue across the United States as more individuals continue to become further removed from production agriculture” (p. 95). Moreover, according to Clemons et al. (2018), as the global population approaches ten billion people, the need for agricultural professionals to understand the differences between agricultural literacy and being agriculturally literate is vital to efforts promoting agricultural literacy (p. 239). The intersection of ACRL’s (2015) concepts for information literacy and the agriculture industry’s concern for agricultural literacy presented a need and opportunity for agricultural course redesign that aimed to ensure graduates with agriculture degrees were more agriculturally literate and better prepared to correspond with others about agriculture through multiple modes of communication.

### **How It Works / Methodology / Program Phases / Steps**

This course redesign occurred in the fall of 2020 in an introductory agriculture class with a large course enrollment ( $N=99$ ). In the course, students were placed into collaborative groups ( $N=11$ ) for the purpose of investigating an assigned controversial topic related to one of the majors or minors offered in the collegiate agricultural curricula. Each group was responsible for producing two products: (1) an oral presentation accompanied by a multimedia slide deck and a reference list with at least six citations; and (2) a blog entry with photos and hyperlinks. The group project occurred during the first half of the semester. Prior to creating the oral presentation and the blog, a guest lecture was provided by a university librarian about finding resources and evaluating credibility. Further, a guest lecture was provided by a staff member from the university’s writing center about tone in a blog as well as citing references. Part of the blog assignment required each group member to share their blog on a social media outlet and analyze the responses or feedback provided by viewers. In the second half of the semester, students completed an individual assignment where they selected an additional controversial topic related to agriculture and created a one-page agriculture issues brief with references. In round-robin partner discussions, students shared information from their briefs with classmates over multiple iterations ( $N=8$ ). Each product required students introduce the topic and elaborate on both sides of the issue, while being informative but not persuasive in nature. Information presented had to be supported by credible sources with references provided appropriately for the mode of communication. The

goal was to have students become consumers and producers of information that, at times, conflicted with personally held attitudes and beliefs while evaluating the credibility of sources and, hopefully, respecting opposing viewpoints. Scoring rubrics were developed to communicate expectations for student performance and guidelines for grading submitted products.

### **Results to Date / Implications**

By researching and sharing information through an oral presentation, a blog, and in one-on-one discussions with peers, students realized gaps in their own knowledge and bias in their attitudes while becoming more familiar with various formats and modes of communication. Students enjoyed that a large enrollment class was engaging and valued sharing divergent perspectives in a safe environment. Comments from student course evaluations substantiated this claim. One student wrote, “the professor made every class meeting interesting and fun and I appreciated his care for student involvement and allowing people to discuss controversial topics in a civil manner without making anyone feel their opinion was wrong or right.” Another commented, “I love that the professor wants us to feel educated about both sides of a topic; he is very understanding” and a third added, “I walked away from this class with new information and more insight on how to perceive the world around me.” Because this course is taught each fall, the instructor compared student course evaluations from 2019 to 2020. One year prior, the instructor evaluation score for the course was 4.58 (measured on a 5-point Likert scale); the fall 2020 rating was 4.66, a higher score than both the college and university average. Specific course evaluation items with increased scores included “The course enhanced students' ability to think critically about the subject”, “The instructor engaged the class and provided opportunities for student participation/contributions appropriate for class size/type”, and “The instructor cared about student learning.” Anecdotally, students enjoyed the collaborative approach and were enlightened by class discussions, which was reflected in the improved course evaluation scores.

### **Future Plans / Advice to Others**

The instructor, in collaboration with a university librarian, created and piloted a test to compare student self-perceptions regarding information literacy knowledge and skills. Pilot test results yielded a high Cronbach's alpha reliability coefficient. Therefore, we plan to use the instrument to conduct an evaluation using a pre-and post-test research design. Lack of student social media usage was a challenge the instructor did not anticipate when asking students to share the blog publicly. Others who implement this strategy should have alternate methods by which students could share their blogs, such as sending an email with a link or sharing a link via text messages to solicit feedback. Also, it is recommended to intentionally group students by various characteristics such as academic major, age, or agricultural background to increase the likelihood of diverse perspectives in a group. This requires collecting demographic information about students prior to creating the grouping arrangements.

### **Costs / Resources Needed**

There were not any financial costs associated with implementing this innovation. Technical resources needed for students to engage in the related assignments include computer access, internet access, a word processing application and a multimedia presentation application. Human resources needed were a campus librarian and a faculty member from the student writing center. This course redesign was supported by the Middle Tennessee State University Information Literacy Curriculum Integration Grant.

## References

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