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Collaborative Book Reviews: Mentoring Students in Agroecology Courses.

Introduction

Critical reviewing skills used to assess the value of books and literature papers are essential for students in agroecology and other disciplines. One traditional way of building this skill is to assign books to be read and reviewed, with these assignments evaluated and graded as one part of course requirements. Some students today challenge us with the idea that, "If it is not on the web, it does not exist!" Many of us with an academic background grew up frequenting the library, with endless opportunities of browsing the stacks and uncovering numerous books that broadened our education and contributed perspective to a thesis or dissertation. We remain committed to enticing students to follow this path, as well as the more common 'surfing the web' to come up with information. Although the web exploration is analogous to browsing the library, and probably more efficient, we insist that the classical book review assignment is one incentive to get students into the library – on line or in the physical building.

In an agroecology class two books are recommended for students to review: *Silent Spring* (Carson, 1962) for the farming systems and environmental impact part of the class, and *Fast Food Nation* (Schlosser, 2001) for the food systems part of the class. These classic books continue to provoke useful discussion in a class inhabited by mostly majors in Agronomy & Horticulture and in Natural Resources. For those who have read these books for another class, and would find the exercise repetitive, I allow them to choose another book that is relevant to the theme and use this as a substitute. In Spring, 2013 I had a number of books awaiting review, and decided to share this opportunity with select students who were identified from previous written exercises as perceptive, diligent and appropriately critical of the written word. I offered these students the chance to review a book that I would also review, and suggested that we combine the two and submit a co-written review for publication. There were eight books reviewed, and the reviews submitted for consideration by journals; seven have been accepted for publication. A literature review of what is important in book reviews, the process we used in class, and the comments of student co-authors about the results are summarized.

Methods

There are numerous ideas in the literature about the importance of quality reviews and guidelines for how to conduct such an exercise. This is an important skill for students to practice, since they will be continuously evaluating published information for veracity and relevance. Particularly important is the skill developed by graduate students prior to doing comprehensive literature reviews for a thesis or dissertation project. If such skills can be developed in classes prior to thesis work, students will be much better prepared to be critical analysts of what they read.

According to the Indiana University writing center, an ideal book review will describe the content of a book, and then analyze how well the writing achieves the purposes stated by the author, and finally the personal reactions of the one doing the review (Writing Tutorial Services, 2004). In describing personal opinions one can include comparisons to other books on the topic, the logical organization of the book, and the credibility of the author. One humorous account describes 'how not to write a review', quoting two scathing reviews of Keat's poetry, and refers to Aristotle in making the same telling points listed above that focus on what the book is about, then how the author describes that content, and then what the reviewer thinks about the review (Pinsky, 2011). Northedge (2005) considers critical thinking one of the key skills for academic success, and one that should be applied in analyzing and evaluating whatever we read in science. Several questions that are raised include:

- Is the argument coherent and is the sequence of presentation logical?
- Are the conclusions clear and do they flow from the analysis presented?
- Are there indications of bias or use of emotional appeal in the language used?
- How do the conclusions agree with or differ from others in the same field?

For reading critically, the same author (Northedge, 2013) offers a series of logical steps in the evaluation of academic texts, whether these are journal articles or books:

- First identify the arguments, and the author's main line of reasoning.
- Then analyze and criticize the argument. Are reasons sufficient? Is it logical? Is the style objective?

- Also assess the evidence. What types are presented and are they valid?
- What are the conclusions and are they supported by the evidence?
- Are alternatives presented? How does this report agree or disagree with other reports?

Results

Several agroecology students read and reviewed contemporary books on farming and food systems, and wrote reviews to submit to fulfill their class requirement. When they returned the books, I did a similar task and then combined the two reviews. There was some exchange between instructor and student as we rationalized differences between our interpretations, especially on how well the authors had met their stated objectives for each book and our personal opinions about the content and approach. Seven of the reviews have already been published since they were submitted after the end of spring semester, for example Avery and Francis (2013), Stewart and Francis, (2013), Pirog and Francis (2013), Yerdon and Francis (2013), and Roché and Francis (2013).

During the review process, including responses to editors, proofing galleys and providing copyright forms, I kept the students involved in each step. They uniformly expressed amazement at the rigor and organization of the submission and review process, and especially at the time involved in moving a publication through the steps needed to reach print. The students were also unanimous in their excitement at being involved in publishing work from their class assignment, and felt this was a valuable dimension of education that would contribute directly to their professional futures.

Conclusions

From this experiment in one semester, I conclude that sharing responsibility with students for writing book reviews is a mutually rewarding experience. Students gain practical skills in reading, analyzing and writing a review that will communicate with potential readers the value of acquiring a book to expand their general knowledge or improve specific professional expertise. The value to an instructor is the opportunity to work with mentoring students in new ways. The level of responsibility is raised when the joint review is intended for publication in a credible national or international journal. Such a win-win situation is the type we should pursue in academia.

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Farm Safety Day Camp Programs for Youth

Introduction

According to the National Agriculture Statistic Service (NASS, 2009), there were 15,876 agriculture-related injuries, which occurred to children or adolescents under the age of 20 who lived on, worked on or visited a farm in 2009. Of all the children injured in farm related accidents, just over 48% of them lived in the Midwest. In Ohio alone, there were 35 farm-related fatalities involving children from 1993 to 2002 (The Ohio State University, 2002). Putnam County Ohio is the 5th largest agricultural county in the state of Ohio. A local Farm Safety Camp is designed to educate children about safe practices and to reduce their risk of injury when on farms. Raising awareness of the potential dangers existing in rural areas and on farms enables youth to be more knowledgeable and careful, around agricultural facilities, equipment, and even their own homes.

Procedures

Ohio State University Extension Putnam County Ohio partners with the Sheriff's Department and the

Health Department to plan the event. The safety camp is held at a local grain and livestock farm. The county's nine public schools and three parochial schools are contacted in the fall to hold an early April date for the Farm Safety Day Camp. April allows for reasonably warm weather but spring planting has not yet started. The schools are coordinated so that class sizes are balanced for each safety session. Each school transports their 3rd grade students to the farm as a half-day field trip. Students rotate through the safety stations every 15 minutes in class groups. The stations are conducted in machine sheds, tents and outside if weather allows.

A local implement equipment dealer provides an educational speaker and machinery for the PTO entanglement and lawnmower stations. An electric cooperative provides an electricity safety demonstration model with a presenter. The health department provides guest speakers and materials to discuss accidental poisonings. OSU Extension provides county educators, audio visual equipment and a flowing grain safety demo. An FFA Chapter provides student volunteers to help with set up and assist presenters. The Sheriff's office provides water safety equipment and presenters who use the farm pond for a station on water safety. The local fire department, ambulatory care center and emergency management agency simulate an emergency rescue for an ATV rollover accident that includes the arrival and departure of a life-flight helicopter.

Teachers escort their 3rd grade students from station to station providing organization and oversight. This also enables them to reinforce the materials taught within the classroom following the event. Because all participants are third graders, presenters are able to tailor all safety materials to be age appropriate and engaging for 8 and 9 year olds.

A wide variety of teaching methods are used at the various safety stations. The grain safety station is near a 40,000 bushel grain bin and a 600 bushel hopper wagon. A transparent table top demo is used to show how drowning can occur in flowing grain of wagons or grain storage bins.

The water safety station has a person needing help about 15 feet out in the farm pond. Students toss flotation devices to the distressed individual and are instructed that almost anything that floats can help. The poison station shows blue sports drinks that are similar to window wiper fluid and how similar the comet sink cleaner container is to the parmesan cheese container. These similar looking liquids and/or their containers can confuse youth and result in accidental poisoning. In addition, empty farm chemical containers are treated with a residue that can be revealed under a black light in order to demonstrate the importance of washing your hands after touching such containers.

The electricity station provided by the local electrical cooperative demonstrates how electricity seeks the most direct path to the ground. Hotdogs and toy soldiers become victims of downed power lines and kites accidentally caught in power lines. Youth learn to avoid power lines and report any downed lines to an adult.

The machinery entanglement station uses a combination of videos and a cordless drill to show how clothing can become entangled in rotating power shafts or equipment pinch points. At the firearm safety station, law officers discuss the importance of not handling guns without adult supervision and encourage youth to report any guns they may find. The tobacco station has a retired dentist showing pictures and videos of the harm that can come from tobacco products, especially smokeless tobacco.

In the simulated emergency rescue, a crash dummy is pinned under an overturned ATV in the farm driveway. Youth are lined up along the drive, and a tarp covering the accident is removed. The sheriff narrates what is happening as police and emergency rescue personnel arrive. A life flight helicopter landing finalizes the mock accident simulation. The mock rescue involves all the sirens and equipment of a real accident scene. After the rescue and a fly-over, the helicopter returns to the farm so that youth can look inside.

Assessment

Of the nearly 600 students attending the day camp in 2013, 524 completed a survey, yielding an 89% response rate. Of those 524 student surveys, 430 parent surveys were returned to the classroom teachers, representing 87% of the possible student-parent matched responses. Demographic descriptors indicate the population was 94% Caucasian and an equal split of boys and girls (n=262 respectively). Almost all campers reported they visited farms (94%). Approximately 48% of students indicated they lived in a rural area, 41.5% in the country and 9.4% on a farm. About 47% of the students lived near town (14.6%) or in a town (32.5%).Results also indicated 89% of students recalled a safety lesson they could use, 91% indicated the demonstrations held their interest and 93% indicated the presenters answered their safety questions clearly.

In 2010, parents were also surveyed about Farm Safety Day Camp. The majority of parents (80.0%) felt the program was a beneficial experience for their children, yet 59.9% would not have taken their child to a safety day camp if it were not part of a school field trip. One hundred and twenty five parents (26.8%) reported their children are practicing better safety behaviors since their day camp experience. Of interest to local program coordinators, 86 parents (18.5%) indicated they have tried to replicate and re-enforce the topics discussed.

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Exploring Agricultural Values: A Workshop on Different Agricultural Values for College Students who are Conducting Agricultural Literacy Activities

Introduction

America has split into differing agricultural value groups which some may broadly describe as conventional (i.e., large-scale production practices) and nonconventional (i.e., small-scale, organic) agriculturalists as well as consumerists. These groups have viewpoints, which can cause conflict. This divide has grown as the population has become more diverse and urbanized. Academia and agricultural leaders as a whole recognize the need to educate the general public on what today's agriculture represents. We have several College of Agriculture Sciences programs which focus on delivering agricultural literacy for the citizens of Colorado. Quite a few students in CSU's College of Agriculture Sciences volunteer to work with these agricultural literacy programs. While they typically enjoy this engagement with the general public, they also reported negative and even hostile interactions from people who did not agree with their agricultural values. In response to these concerns we have designed a workshop to address the difficulties of talking to people who have different sets of agricultural values. The workshop was designed to reduce and even mitigate the negative and hostile interactions our student volunteers were occasionally encountering.

Procedures

The major emphasis of the workshop was on how to find common talking points with people from differing value groups. This workshop included an introduction, three videos with discussion, and a summation. The workshop took about an hour. Frist, students learned that everyone has the right to have their own values, even about agriculture, and their job in promoting agricultural literacy was not to force people to change their values. Second, students were told that they were going to see three videos which might cause an emotional reaction. They were asked to watch each video with an open mind and try to hold back their emotions. They were asked to write down the values, truths, and deceptions they saw in each video.

The first video was a Gatorade commercial. There are a variety of Gatorade commercials which can work. We usually use a commercial featuring Kevin Durant and Dwayne Wade, two professional basketball players. The agricultural value displayed in the commercial was that many people see food only as a source of energy which can help them succeed (i.e., consumerist view). This value is sometimes lost on the participants and must be highlighted by the facilitator. While people who hold these consumerist values about agriculture may have a limited knowledge of agriculture, they have a basic knowledge of food (carbohydrates, fats, protein, etc.), which was exhibited in the Gatorade commercial. This basic knowledge of food was used as an opportunity to discuss the specifics of agriculture, including how production animals put on muscle through specific dietary patterns.

The second commercial was Chipotle's Scarecrow. This commercial typically draws negative reactions from students who are general conventional agriculturalists. I focus the students' attention on the truths and deceptions of the commercial they see. Students are told that this commercial represents only a small portion of Americans (i.e., nonconventional agriculturists); however, mass appeal of advertising and the subliminal messages behind this commercial provides the students with talking points. Facilitators need to help students to find some truth in the commercial, which usually centers on the acknowledgment that conventional agricultural practices sometimes rely on chemicals, antibiotics, and certain large-scale agricultural practices. Students should not shy away from these points because they seem controversial; rather, they should be honest to people about the logic, benefits, and risks of such practices. The commercial also argues for small-scale farming to produce healthy and enjoyable food. The healthy and local food values can be an interesting talking point for people with different views on agriculture.

The final commercial was Dodge Ram's (2013) God made a Farmer. This commercial often appeals to the students who generally agree with conventional agriculturalist values. Nonetheless, an honest discussion concerning the commercial's truths and deceptions is needed. Students often identify the themes which exaggerate the lifestyles of American agriculturalists. These include the messages that American agriculturists are rural, Christian, white, and hard working. We utilize these messages as talking points for the general public. People may have nostalgic views about agriculture, and this commercial reaffirms this misconception.

The last step of the workshop was to compare and contrast the values of the commercials. We try to find common ground, which will help students talk to people who have diverse values in agriculture. For instance, the God made a Farmer and Scarecrow commercials both highlight the benefits of small-scale production and family farming. Students should walk away with a sense of some commonalities across the agricultural values divide. These similarities can serve as discussion points when students are in front of the public and hopefully will help defuse potentially negative interactions.

Assessment

The workshop has been conducted twice for the College of Agriculture and has been well received each

time. The workshops last about an hour and each had over 20 attendees. Workshop attendees later reported having more confidence talking to people with different agricultural values. In addition, no negative interactions were reported between students and others with differing viewpoints during our agricultural literacy events. Most importantly, students learned how to initiate critical conversations about what they believe and why, which increases their own understanding about agriculture.

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Cultivating Student Relationships in the Classroom

Introduction

Have you ever walked into a college classroom before class has started and heard nothing but silence? Then when class starts it is a challenge for the instructor to get the students engaged in meaningful discussion. When students feel comfortable in a classroom setting, they are more likely to talk with their peers and engage in the learning experiences provided by the instructor. In today's educational environment it is critical to prepare students that are capable of using critical thinking skills to solve real world issues. Additionally, employers often expect graduates to be able to work effectively in a team setting. In order to prepare students to work with other people and to be successful in their chosen field, classroom learning experiences should be designed to cultivate student relationships.

Procedure

The following is a list of methods that help to cultivate student relationships and create a sense of community in the classroom.

1. On the first day of class allow the students time to get to know one another and to become comfortable speaking to the entire class. Provide students with a prompt that encourages students to learn about each other.
2. Use icebreakers on the first day of class to ease the tension and promote the importance of student interaction.
3. Prior to your first class discussion set guidelines and expectations for the discussion. Taking the time to outline your expectations will allow for meaningful conversations throughout the entire semester.
4. Form small teams of students that will work together on assignments and in class learning activities.
5. Design learning activities that allow for students to solve complex issues when working together in teams. Allow the teams to use class time to work together on the learning activities in order to build relationships with each other and to collaboratively work on complex projects.
6. Design learning activities that promote regular student interactions.
7. When lecturing, take the time to pose questions and allow students to work together to answer the questions. After students interact with their peers, have multiple students share their answers with the entire class.
8. Form peer editing teams to allow the students to critique the work of other students. This will provide students with the opportunity to critically examine the work of others and to build relationships as they enhance their critical thinking skills.

Assessment

The above methods of cultivating student relationships in the classroom has helped to make the classroom environment more comfortable and conducive for student centered learning. Time spent on cultivating student relationships has allowed the students to become comfortable with one another and more willing to share their ideas with small groups of students and the entire class. The students no longer seem apprehensive to share their ideas with the class. Additionally, the students are much more accepting of each other's ideas and beliefs. Taking the time to foster student relationships in the classroom has turned the classroom into a room full of open discussion in which the student does not have to be concerned with being ridiculed for their opinions and ideas.

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