

What's the Issue?: Critical Thinking about Current Events in Agriculture

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Establishing the Need

Several recent studies have indicated the need for curricula which integrate and emphasize **critical thinking** in the agricultural communications and leadership disciplines.

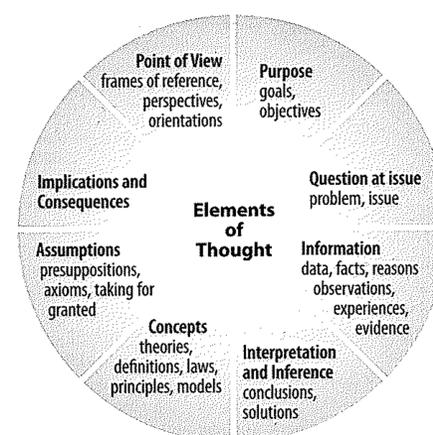
- Irlbeck and Akers, 2009
- Telg and Irani, 2005
- Sitton Cartmell, and Sargent (2005)

Capstone courses are one way for students to pull together the knowledge gained through previous coursework (Sitton, 2001).

- Capstone courses have been defined as "a **culminating experience** in which students are expected to **integrate, extend, critique, and apply knowledge gained** in the major" (Wagenaar, 1993, p. 206).
- These types of courses allow students to make **meaningful connections** between coursework and professional industry (Fairchild & Taylor, 2000).

Critical Thinking Framework

Critical thinking is:
The art of analyzing and evaluating thinking with a view to improving it (Paul & Elder, 2009).



Paul, R., & Elder, L. (2009). The miniature guide to critical thinking: Concepts and tools.

How it Worked

Assignment Requirements

- Students delivered a (maximum) 10 minute "elevator speech" outlining an issue related to agriculture or natural resources. Issues were chosen by the students.
- Following the oral presentation, students submitted a (maximum) two-page written issue brief summary.

Assignment Description

(see handouts)
Oral Presentation Point Value – 50
Written Issue Brief Point Value – 100
(Total course points possible – 1100)

Grading Rubric

- Designed to emphasize critical thinking skills

Results

- 25 senior undergraduate student participants
- Average Written Issue Brief score – 88.8/100 points
- Average Oral Presentation score – 47.02/50 points
- Oral presentations prompted lengthy discussions of topics and local and national impact.

- Written briefs – select briefs will be invited to have their writing published on the Center for Public Issues Education in Agriculture and Natural Resources web site this summer

Issue Topics Included:

- Agricultural impact of Haitian earthquake
- Severe weather hits Florida crops hard
- Kraft pledges to cut salt from N. American products
- Food recalls and outbreak of *E. coli* O157:H7
- New eco-friendly food and drink products
- Xenotransplantation
- America's aging farming population
- Michigan's governor declares MeatOut Day
- Use of methyl bromide outlawed

Discussion and Conclusions

- Students scored well on both portions of the assignment - overall average was 136/150 points (91%).
- Irlbeck and Akers (2009) specifically recommended the integration of activities and assignments that promote critical thinking among students of this type.
- Integration of this critical thinking activity allowed students to:
 - ✓ Select an issue of interest
 - ✓ Engage with the material
 - ✓ Practice and exhibit critical thinking skills
 - ✓ Provided real world contextual issues for students to learn about
 - ✓ The capstone experience provided a successful venue for students to apply knowledge and skills, including critical thinking skills, learned in previous courses to real-world issues of interest.

Future Plans

Include a written reflection portion with the assignment

- Students should be given 5-10 minutes at the close of each set of presentations to reflect on the issues presented, quality of the presentation and quality of information used.
 - At semester end, provide a final opportunity for student reflection about the assignment, what was learned, how it impacted their interests in the issue, and how they may see themselves involved in this issue in the future.

Increase emphasis on communication skill quality

- Rubric points for quality of communication skill were low. To increase the emphasis on these important skills (Doerfert & Miller, 2006) raise point values in this area and provide more opportunities for building these skills.

Integrate course unit on critical thinking

- Doerfert & Miller (2006) noted that "a combination of theory and skills/practical applications will prepare students" to be successful in business or academic positions.