

Influence of Case Studies when Teaching Agricultural and Natural Resource Issues

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Why case studies?

- ANR college graduates need to be aware of and knowledgeable about these issues to become leaders in the ANR industry upon graduation.
- Case studies help engage students in complex issues (Naumes & Naumes, 2006).
- Case studies are written narratives based on facts and data from a past event or experience (Naumes & Naumes, 2006).
- Videos, audio clips, web resources and animations recreate real world scenarios (Chattaraman, Sankar, & Vallone, 2010).
- Students typically retain more information when they learn by doing (Naumes & Naumes, 2006).
- Case studies can bring personal relevance to the classroom through multimedia experiences (Chattaraman et al., 2010).

Methods

- Sample: 26 students enrolled in AGCOMM 3300: Communicating Agriculture to the Public class at Texas Tech University.
- Three case studies were taught: antibiotics in animals, water conservation in agriculture, and crisis communication after a food recall.
- Pre/Post test was developed to assess perceived knowledge.
- Qualtrics was used to distribute the survey.

Conclusion & Recommendations

- Students did increase knowledge by experiencing case studies with some topics.
- Case studies should be used in agricultural education.
- Pretest effect could have impacted results.
- Future research should look at actual knowledge.
- Experimental design between case study and traditional teaching.

powerpoint

Individual Innovativeness

- Innovators
- Early adopters
- Early majority adopters
- Late majority adopters
- Laggards

video

JEFF PATE
Risk Management Specialist

What is animal agriculture?

- AKA: livestock production
- Livestock sometimes refers exclusively to ruminant animals (i.e., cattle, goats)
- Animal ag is broader descriptor understood to be inclusive of all farm animals, even fish
- Raising domesticated animals for the purpose of producing commodities
 - Food (including dairy and eggs)
 - Fiber (textiles)
 - Labor (draft horses)

pictures

Purpose & Objectives

Purpose:

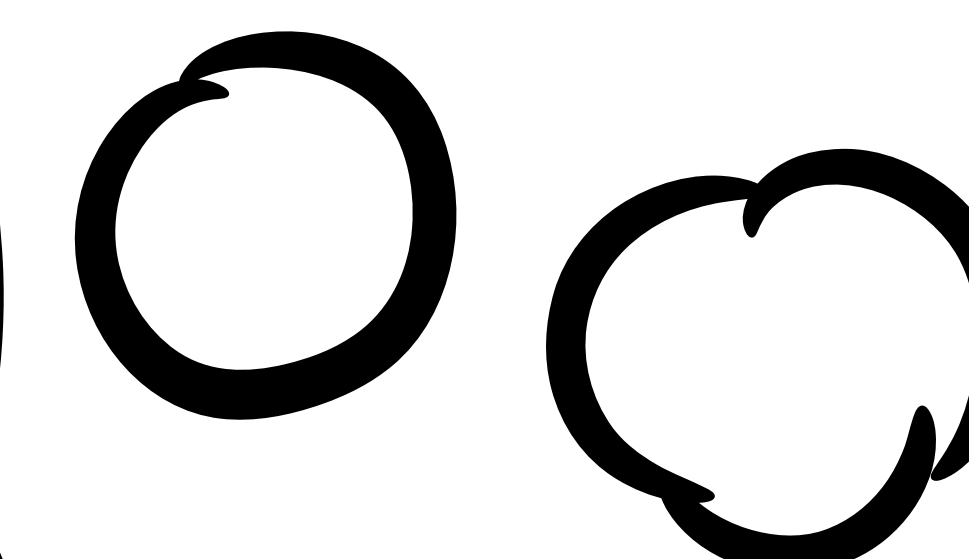
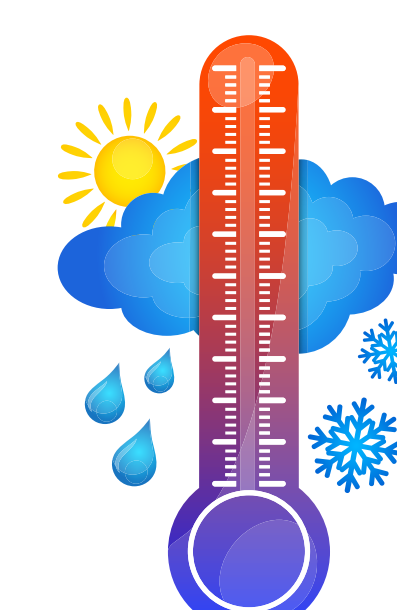
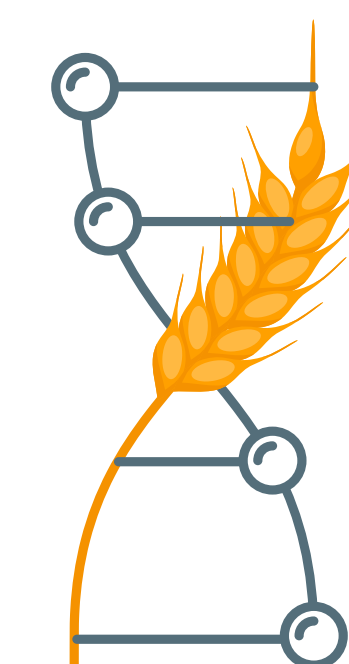
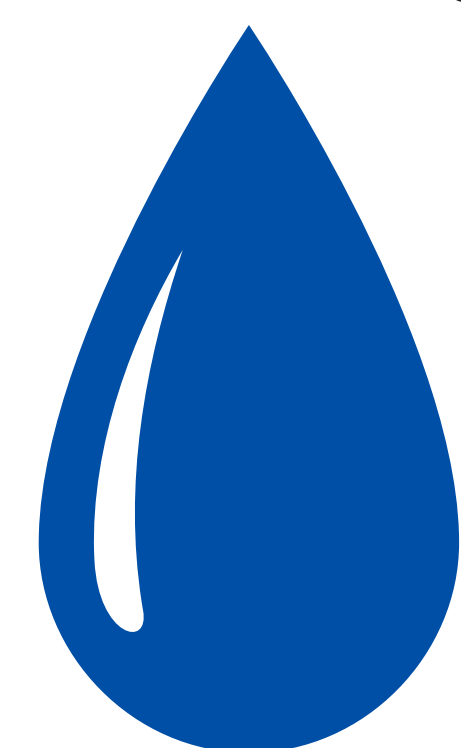
- Assess if case studies increased undergraduate students' self-perceived knowledge of ANR issues when taking an ANR issues course.

Objectives:

- Describe undergraduate self-perceived knowledge before and after taking an ANR issues course with integrated case studies.
- Determine if there was a significant difference in perceived knowledge gain as a result.

Case studies did have a positive impact

- Two of the three topics covered by the case studies, food safety and water, had statistically significant change in self-perceived knowledge.
- Five of the nine topics were statistically significant in self-perceived knowledge.
- *Somewhat knowledgeable* increased for food security, while low and high knowledge both decreased.



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