

STUDENT PERCEPTION OF LEARNING AND THE LINK TO STUDENT LEARNING OUTCOMES OF A COURSE

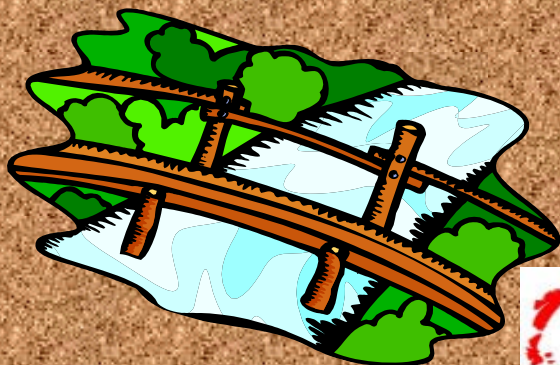
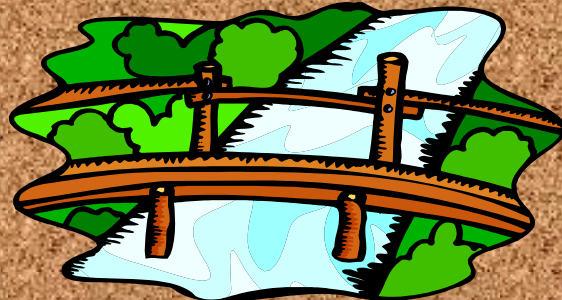


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Challenges



Rationale



- **Traditionally focused on quantity of learning and not quality**

(Biggs, 1979)

- **Teachers often design student learning outcomes based on course content**

(Dick et al., 2006)

- **Earned grades are often the measure used to determine if students met the learning outcomes of the course**

- **Not much literature available to link student perception of meeting learning outcomes irrespective of grade earned**

- **Perceived student learning used as a tool to measure student satisfaction of the course**

(Eom et al., 2006)

Synopsis



Introduction to Animal Science (ANSC 131)

3 credits, 3 hours (3 meetings/week or 2 meetings/week)

Major degree requirement

~35 students/section

Data from 2010-2014; 8 semesters; 683 students (n=683)

Information delivered by single instructor

Introduces students to the various species of domestic livestock to develop a deeper appreciation of the animal agriculture industry and animal sciences



Objective

To begin to evaluate students' perception of achieving the learning outcomes of a course

Experimental Design

Survey was passed out on first day of class and last day of class

Completed and turned in anonymously

9 statements

10 point Likert-scale (1 = not at all; 10 = expert)

Experimental Design

Your Understanding of the Animal Sciences – April 2011

Read each of the following statements and circle the number that best corresponds to how you feel about the statement right now.

Statement	Not at all		Less than adequate		Average		More than most		Expert	
1. I feel that I could name and define the current terminology associated with red meat and poultry products.	1	2	3	4	5	6	7	8	9	10
2. I feel that I could name and list the function of most anatomical structures associated with the reproductive and digestive systems of all livestock species.	1	2	3	4	5	6	7	8	9	10
3. I can name the major breeds and sexes in each of the different livestock industries.	1	2	3	4	5	6	7	8	9	10
4. I could describe the composition, value, and source of most animal products.	1	2	3	4	5	6	7	8	9	10
5. I know how the anatomy and physiology of livestock relates to management decisions (breeding, selection, genetics, diets, etc.)	1	2	3	4	5	6	7	8	9	10
6. I can describe the main components of each livestock industry and their significance within the industry.	1	2	3	4	5	6	7	8	9	10
7. I can explain to someone while walking through the grocery store the origin and significance of every animal product.	1	2	3	4	5	6	7	8	9	10
8. I can formulate rations, make breeding recommendations, and determine the genotypes of animals without much effort.	1	2	3	4	5	6	7	8	9	10
9. I would feel comfortable offering my advice to producers about their operations if asked.	1	2	3	4	5	6	7	8	9	10

Experimental Design

Student Learning Outcome #1

Name, list, and define key terms and concepts currently used in the study of animal science. [KNOWLEDGE]

Statement

I feel that I could name and define the current terminology associated with red meat, poultry and dairy products

Statement

I feel that I could name and list the function of most anatomical structure involved in the organ systems of livestock

Statement

I can name the major breeds and genders of animals found within the different livestock industries

Experimental Design

Student Learning Outcome #2

Locate, identify and describe the key terms/concepts and explain/discuss their significance in the animal sciences. [COMPREHENSION]

Statement

I could describe the composition, value, and source of most animal products

Statement

I know how the anatomy and physiology of livestock relates to management decisions

Statement

I can describe the organization of each livestock industry and their significance within the industry world-wide

Experimental Design

Student Learning Outcome #3

Demonstrate knowledge and comprehension by interpreting and solving problems and scenarios relative to the animal sciences.

[APPLICATION]

Statement

I can explain to someone while walking through the grocery store the origin and significance of most animal products encountered

Statement

I can formulate appropriate rations, make sound breeding decisions and determine the genotypes of animals without much effort

Statement

I would feel comfortable and confident speaking about or offering my advice to people about animal science

Results: SLO #1 – Knowledge

Scale: 1 = not at all, 10 = expert

<u>Statement</u>	<u>Mean Response (standard dev.)</u>	
	<u>Beginning of Semester</u>	<u>End of Semester</u>
I feel that I could name and define, the current terminology associated with red meat, poultry and dairy products	2.82 (0.90)	7.77 (0.24)
I feel that I could name and list the function of most anatomical structure involved in the organ systems of livestock	3.61 (0.84)	7.85 (0.34)
I can name the major breeds and genders of animals found within the different livestock industries	3.77 (0.67)	8.39 (0.23)

p < 0.05

Results: SLO #2 – Comprehension

Scale: 1 = not at all, 10 = expert

<u>Statement</u>	<u>Mean Response (standard dev.)</u>	
	<u>Beginning of Semester</u>	<u>End of Semester</u>
I could describe the composition, value, and source of most animal products	3.21 (0.53)	7.77 (1.00)
I know how the anatomy and physiology of livestock relates to management decisions	3.47 (0.85)	8.08 (0.34)
I can describe the organization of each livestock industry and their significance within the industry world-wide	2.93 (0.43)	7.96 (0.56)

p < 0.05

Results: SLO #3 – Application

Scale: 1 = not at all, 10 = expert

Statement	Mean Response (standard dev.)	
	Beginning of Semester	End of Semester
I can explain to someone while walking through the grocery store the origin and significance of most animal products encountered	2.96 (0.89)	7.87 (0.41)
I can formulate appropriate rations, make sound breeding decisions and determine the genotypes of animals without much effort	2.56 (0.23)	7.97 (0.45)
I would feel comfortable and confident speaking about or offering my advice to people about animal science	2.34 (0.48)	6.99 (0.48)

$p < 0.05$

Results: SLO

Scale: 1 = not at all, 10 = expert

	<u>Student Learning Outcome</u>	<u>Mean Response (standard dev.)</u>	
		<u>Beginning of Semester</u>	<u>End of Semester</u>
(0.41)	#1. Name, list, and define key terms and concepts currently used in the study of animal science. [KNOWLEDGE]	3.40 (0.89)	8.00
(0.45)	#2. Locate, identify and describe the key terms/concepts and explain/discuss their significance in the animal sciences. [COMPREHENSION]	3.20 (0.23)	7.94
(0.48)	#3. Demonstrate knowledge and comprehension by interpreting and	2.63 (0.48)	7.61

Conclusions

- 🗣️ **Students perceive they are learning during the semester**
- 🗣️ **Students perceive they are meeting the learning outcomes of the course**
- 🗣️ **Students' perception should be linked to course assessment artifacts to further validate student learning objectives are being met**

Questions?

