

Teaching/Undergraduate and Graduate Education: Teaching

T472 Relationship between participation in youth equine organizations and collegiate equine activities. M. Nicodemus*, *Mississippi State University, Mississippi State.*

Despite current economic uncertainties, youth equine organizations are flourishing. While University budgets cuts threaten elimination of equine programs due to relatively low enrollment, a potential rise in enrollment would justify program continuation. To determine whether a background in youth equine activities influences participation in collegiate equine activities, students enrolled in equine courses ($n = 95$) at Mississippi State University were asked to fill out a researcher-developed, 10-item survey instrument with questions focusing on youth and collegiate activities. Effect of youth equine activities on percentage of those students involved in equine collegiate activities was tested using a one-way ANOVA ($P < 0.05$). Less than half (30%) of surveyed students had participated in youth equine organizations with 4-H (40%) ranking the highest for those individuals. The majority (82%) of those with a youth background planned on a career in the equine industry with only 58% for those with no background. As for equine extra-curricular activities, 36% of those with a youth background were active compared with only 13% of those with no background. The majority (89%) of those with a youth background planned on taking another equine course with the other 11% unable to take another course due to graduation, while 39% of those with no youth background were not planning to take another equine course with the majority of those students (22%) not graduating. Even though those with a youth background had a strong equine handling foundation before college, 79% had taken or were currently taking a course with a hands-on laboratory. Overall, a youth equine background was found to influence the involvement in collegiate equine activities as although these students were the minority their involvement in collegiate equine activities (riding teams, judging teams, clubs, hands-on riding laboratory courses, hands-on non-riding courses, non-hands-on laboratory courses, and enrollment in multiple equine courses) was greater than those without ($P < 0.05$) suggesting the growth currently seen in youth equine organizations will result in a growth of students active in future collegiate equine activities.

Key Words: youth equine organizations, collegiate equine activities

T473 Free web applications for educational purposes. P. A. Curtis* and M. O. Kloepper, *Auburn University, Auburn, AL.*

Using free web applications costs you—nothing! This session will focus on free applications that the presenters use in face-to-face and distance education classes, encourage you to invest a little bit of time to learn about them and discover how they might be used for your educational purposes. Only free applications will be showcased. Discussion will be encouraged among attendees to suggest and share novel ways the various applications might be used.

T474 Applications of functional anatomy in farm animals using collaborative learning. H. G. Kattesh*, M. H. Sims, R. B. Reed, and F. M. Hopkins, *University of Tennessee, Knoxville.*

A multimedia program dedicated to the teaching of fundamental principles of functional anatomy in farm animals using a problem-oriented approach was produced and developed for web course distribution in

promoting collaboration among students and faculty at other colleges and universities. Students are presented a series of lessons containing text, graphics, animation, and audio and video that involve the anatomy and physiology of the respiratory system in farm animals. Mastery level of the lessons is assessed using 20 randomly selected multiple-choice questions from the 10 lesson chapters. Three case studies of respiratory system abnormalities in animals of agricultural significance were documented. Expert prompts, including history and details pertinent to each case, are provided in video and text formats to aid the student in documenting initial observations. Upon successful completion of the lesson material, the student is permitted to enter conclusions about the nature of the abnormality. This information, along with the student's notes and quiz responses, is stored on the Blackboard Web site for subsequent review by the instructor. At the end of the program the expert will give a synopsis of the case. We have received favorable comments from our undergraduate, graduate and professional students regarding the program's quality, format, and innovative nature. Using a designated Web site, syllabi from participating universities that offer a comparable course in farm animal anatomy and physiology will be solicited and published to facilitate interaction among the students and their instructors. Each instructor will facilitate discussion forums and web forms will be used to collect data on the learning process. Participation in this collaborative learning community should improve problem-solving skills of students as they practice applying physiologic concepts to their own observations and, at the same time, form partnerships with other undergraduate agricultural students to better utilize limited resources.

Key Words: collaborative learning, functional anatomy, respiratory system

T475 Measuring the impact of varied instructional approaches in an introductory animal science course. B. G. Bolt* and K. D. Layfield, *Clemson University, Clemson, SC.*

The objective of this study was to measure the impact of various teaching formats on a student's likelihood of correctly answering a knowledge-based question and to also assess any relationships between knowledge acquisition and self-perceived levels of engagement. Data were collected on students in the AVS 150, introductory animal science class ($n = 155$) at a southeastern university during the fall of 2008. Ten to 15 min of class time were allocated to use of one of 3 teaching formats. The 3 teaching formats were labeled as traditional lecture, technology-enhanced or Web-enhanced. At the conclusion of allocated time, students were posed a knowledge question, germane to the presented material and they were also asked to respond with a perceived level of engagement in classroom activities. The responses were collected via a 5-point Likert-type scale (1 = completely disaffected to 5 = completely engaged) using the i-Clicker audience response system. There was a significant difference ($P < 0.05$) in students reported level of engagement in traditional lecture ($M = 3.41$), Web-enhanced ($M = 3.52$) and technology-enhanced ($M = 3.70$). No significant relationships were identified between a student's level of engagement and the likelihood of answering a knowledge question correctly. This finding suggests that although students indicate a preference for how material is delivered, this preference did not impact academic performance.

Key Words: student engagement, teaching methods, undergraduate education