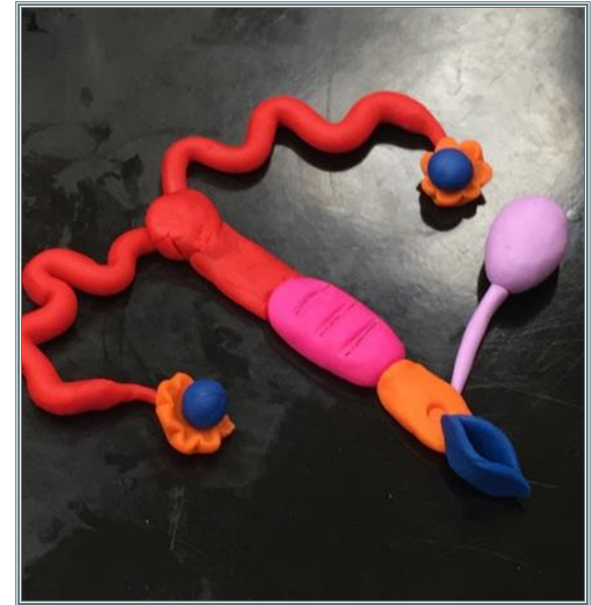


# Active Learning in the Lab

## Modeling Clay Uteri



**Dr. Stephanie Jones**

Department of Agriculture

~Assistant Professor of Animal Science

# Hypothesis:

- Increasing active learning activities to improve student knowledge retention in lab activities

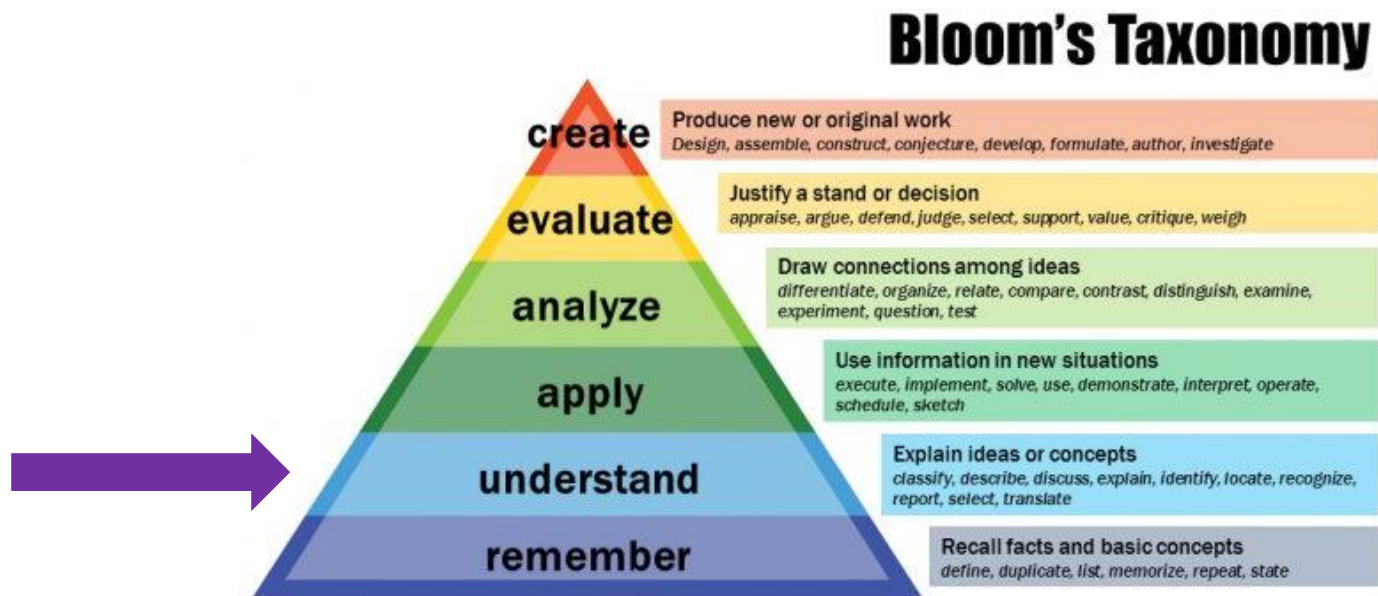


# ANS 428- Animal Reproductive Physiology Lab

- Course Description:
  - To gain understanding in the concepts and applications of reproduction in farm animals.
- Course Goals:
  - Students will understand fundamentals of reproductive anatomy of the male and female, hormonal regulation of reproduction, puberty, cyclicity of reproduction, biotechnology related to reproduction, process of parturition, pueriperium, and lactation.

# ANS 428- Animal Reproductive Physiology Lab

- Learning Objectives:
  - Students will be able to identify the reproductive anatomy and reproductive structures of animals.
  - Students will create and identify the reproductive anatomy and reproductive structures of animals.

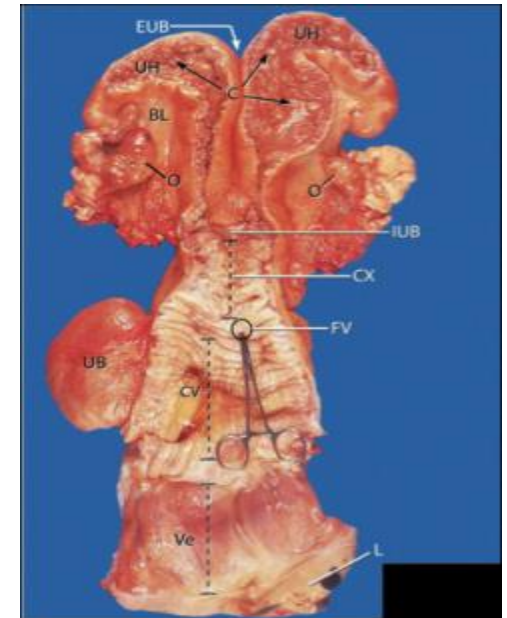


# Active Learning

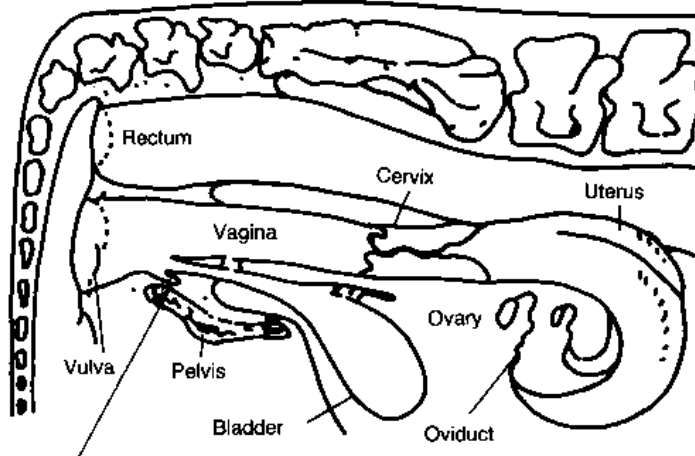
- Research reveals numerous reasons to use active learning, including:
  - increased student engagement
  - increased student performance
  - an improvement in student's ability to think critically.
- Push students to use higher order thinking skills within Bloom's Taxonomy are ideal

# Instructor Goals – Student Engagement

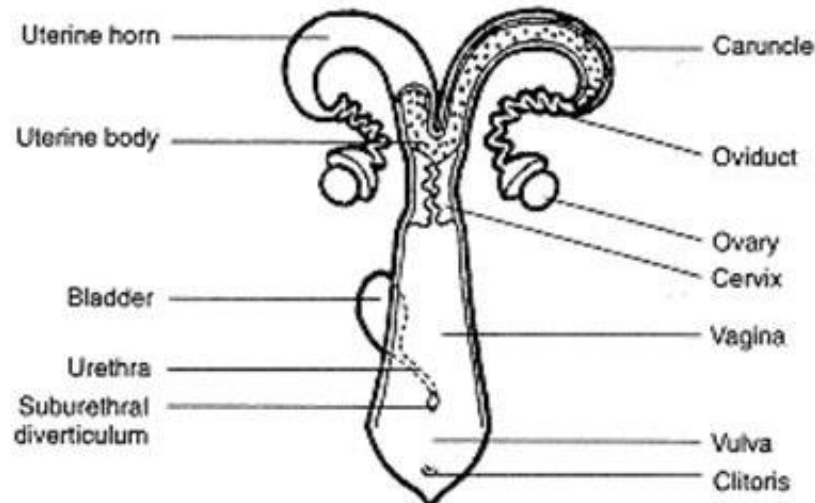
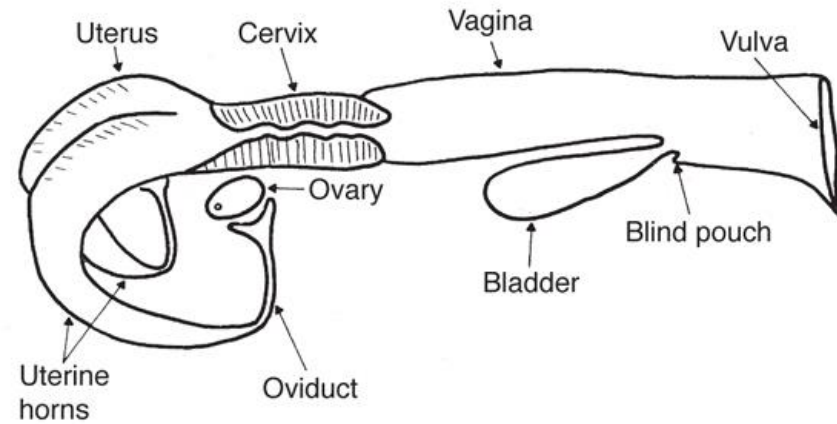
- Students retain more information when actively engaging with material
- Labs designed to be hands-on
- Sometimes access to dissection materials is limited



# Cow Reproductive Tract



Sub-urethral diverticulum

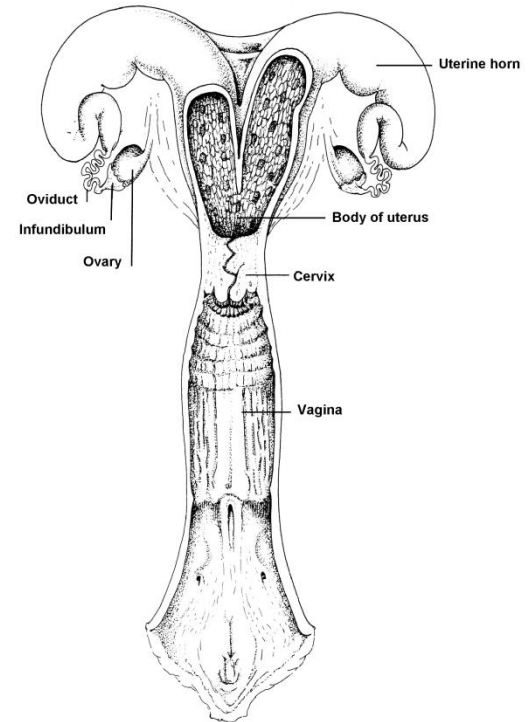


# Materials

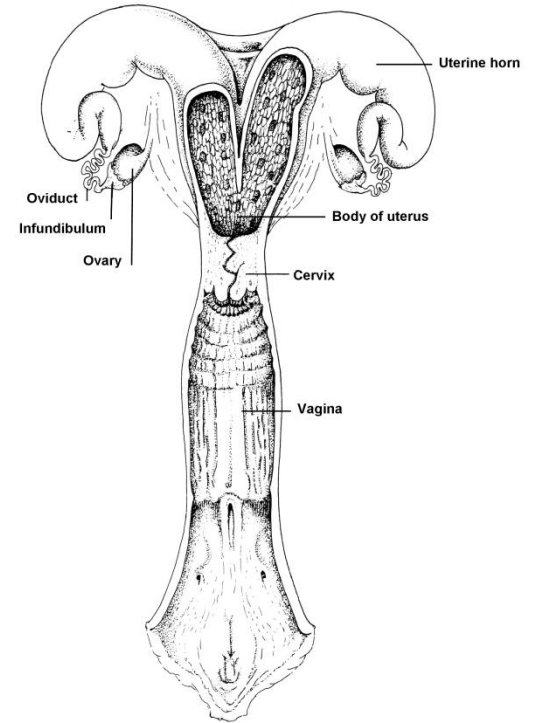
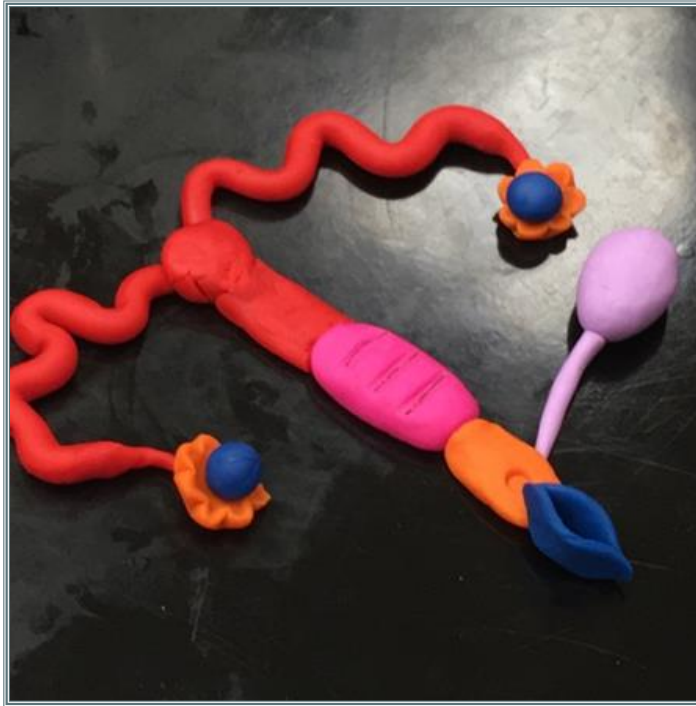




# Student Creations

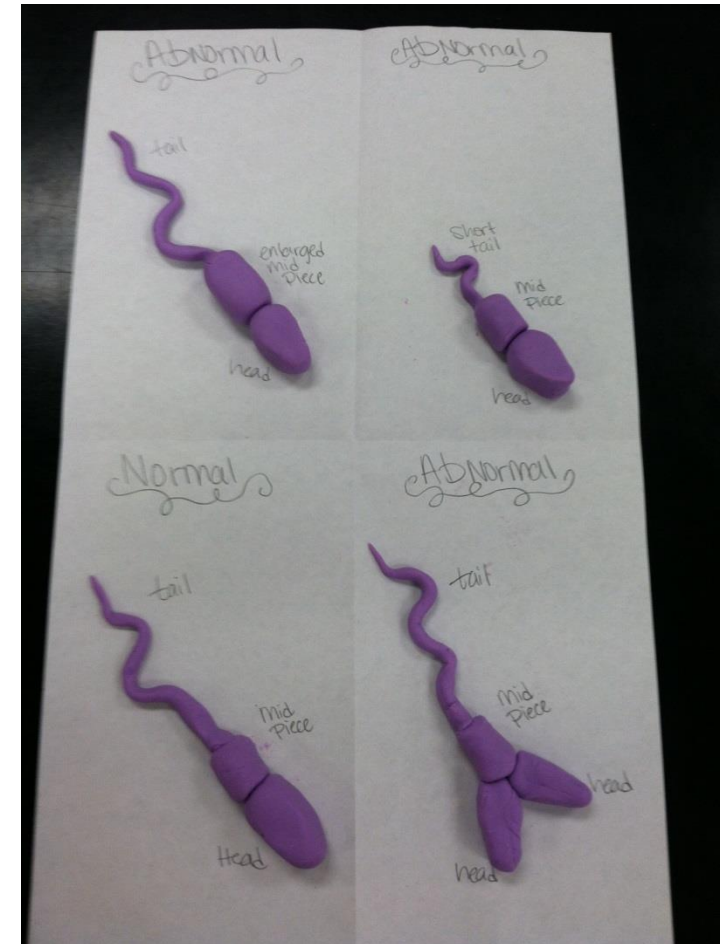


# Student Creations



# Implications

- Increasing hands-on activities in lab improves:
  - Student engagement
  - Knowledge retention
    - Short & long term
  - Course performance
  - Student's enjoyment
    - Decrease stress/anxiety



# Student Comments

“At first in lab I'm not gonna lie I thought the visuals we made we're very elementary school style. But I had a change of heart as to how silly it seemed when I realized how much doing these things helped me learn the information. Not just memorize it. Who knew **actually building sperm with play dough would make me learn, not just memorize**, the structure. Awesome teacher. Awesome methods. Just an over all great class.”

# Student Comments

“I learn best hands on. You made it **very easy to learn with the sticky notes, making a estrus cycle with pipe cleaners, and the play dough was fun.** Keep doing what you are doing, very fun and learning was easy because you would help break it down and give examples.”

# Student Comments

“Best class I've ever taken was last semester. It was Animal Reproduction and Physiology, and it was my favorite class. Though the course work itself was interesting, it was more the professor that made me love the course so much. There was never a dull moment in her class. We were **always learning something in a new and exciting way (we made uterus' out of clay one day!)”**

# Questions?

