# How to Avoid Your Students Saying: Ugh not Another Class Project!



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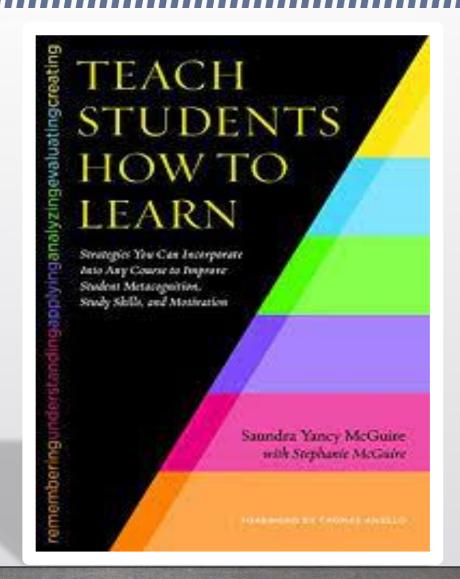


- 1. Gain knowledge of how to incorporate metacognition and self-reflection into class projects
- 2. Acquire tools to help incorporate critical thinking into class projects
- 3. Learn how to construct a creative and engaging classroom project



### Sandra McGuire



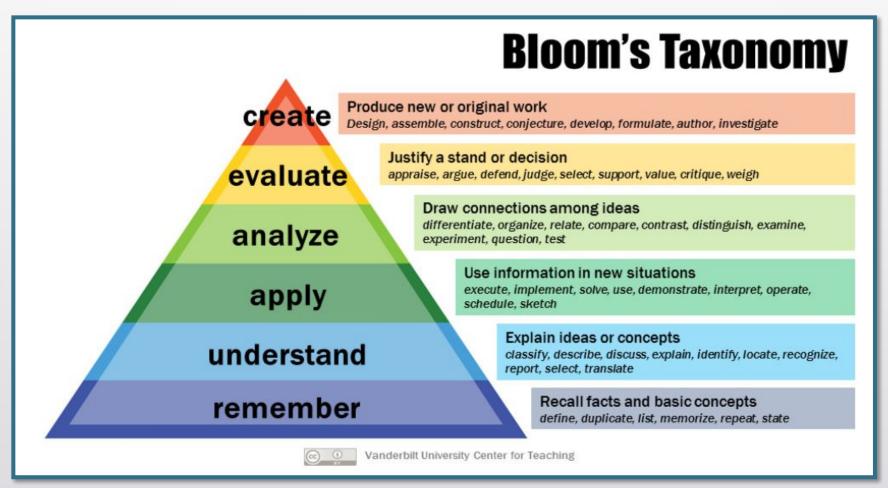






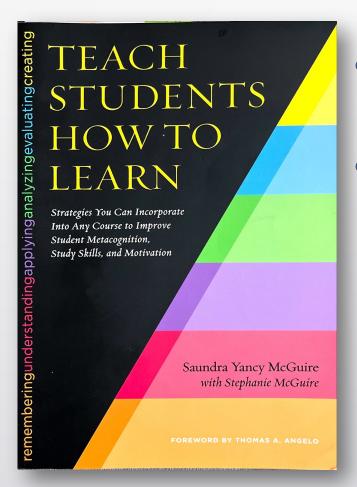


## Key points of pedagogy



- Armstrong, P. (2010). Bloom's Taxonomy. Vanderbilt University Center for Teaching. Retrieved 6/12/22 from https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/.
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### Concepts from Sandra Mcguire's Book

- Metacognitive Learning Strategies at Work
  - Students as Teachers
  - "Play Detective"
- References "Raffini's Five Bases of Intrinsic Motivation"
  - Autonomy, Competence, Belonging, Self-esteem, Involvement, and Enjoyment
  - Autonomy
    - Allow the students to pick their project topics
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    - "Switch days" students teach the teacher



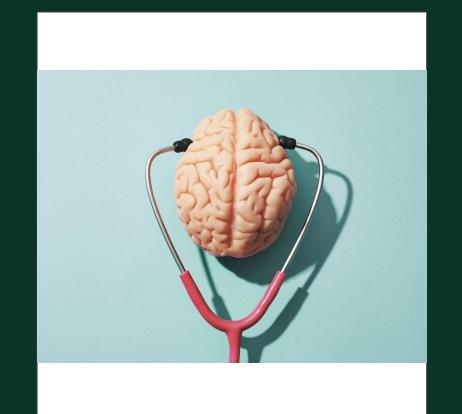


# Small Animal Diseases Dr. Amanda Colón





# Disease Project: A Case Review

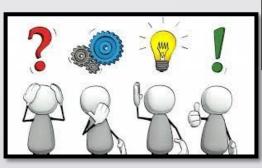




# Small Animal Disease Project: A Case based Approach

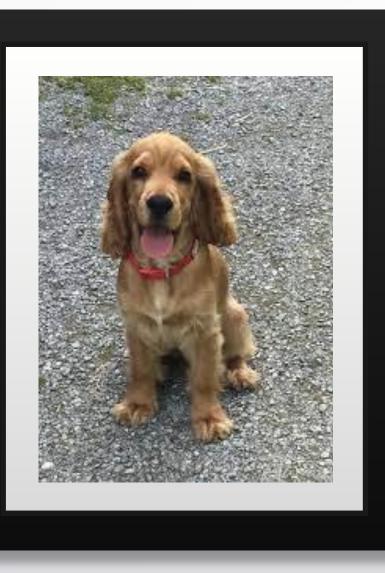
- Choose a disease from the list
- Create a case example of the disease from start to finish
  - History
  - Clinical signs
  - Physical exam findings
  - Diagnostics
  - Disease Review
  - Treatments
  - Discharge notes
- Get your classmates to guess the disease
- Require multiple prompts/questions to the class











### Patient Info

Leroy

• Species: Canine

• Breed: Cocker Spaniel

• Age: 7 years old

• Sex: M/N



### Full Case Example

#### History from client

- Chief Complaint: vomiting and diarrhea after eating a large portion of a rotisserie chicken two days ago
- Owner also notes:
  - Lethargy
  - Anorexia
  - Hypersalivation

#### Exam Findings

- ▶ Mentation: depressed
- ▶ HR: 180 bpm
- RR: 28 breaths/m
- ▶ Temp: 103°F
- MM: pale pink
- ► CRT: 2 seconds
- Painful abdominal palpation at right cranial quadrant
- ▶ BCS 3/9

#### Assessment

- Tachycardia
- Fever
- Dehydrated (decrease skin turgor)
- Nauseous

#### What diagnostics should we run?

- ► Abdominal radiographs
- ▶ Ultrasound
- ▶ CBC/chemistry
- ▶ Snap cPL

Hematology	Results	Range
RBC	8.72	6.54 - 12.2
Hematocrit	33.4	30.3 - 52.3
Hemoglobin	12.6	9.8 - 16.2
MCV	46.8	35.9 - 53.1
MCH	14	11.8 - 17.3
MCHC	33.7	28.1 - 35.8
RDW	23	15 - 27
% Reticulocyte		
Reticulocytes	40	3 - 50
Reticulocyte Hemoglobin	15.4	13.2 - 20.8
WBC	20.23	2.87 - 17.02
Neutrophils	15	2.3 - 10.29
Bands	present	
Lymphocytes	2.56	0.92 - 6.88
Monocytes	0.36	0.05 - 0.67
Eosinophils	0.87	0.17 - 1.57
Basophils	0.1	0.01 - 0.26
Platelets	110	151 - 600
MPV	10.1	11.4 - 21.6

Leukocytosis Neutrophilia with left shift Thrombocytopenia

Hypochloremia

Increased ALT/ALP/GGT

Increased amylase/lipase

Increased Bilirubin

Diagnosis?

### **Necrotizing Pancreatitis**

- > Inflammation of the pancreas
- > Acute vs. Chronic
- > Trypsin develops prematurely in the pancreas rather than the duodenum
- ➤ Inflammation leads to SIRS → MODS → DIC
- Can cause hypovolemic or distributive shock (sepsis)
- > Often misdiagnosed because the clinical signs are varying
- > Tri-iditis: pancreatitis, hepatitis, gastroenteritis

#### Treatment

- ▶ Hospitalization:
  - Crystalloid (LRS) and colloid fluid therapy
  - Fresh frozen plasme
  - ▶ Fentanyl CRI
  - Ondansetron
  - ▶ Enrofloxacin
  - Metronidazole



Critical Thinking + Communication





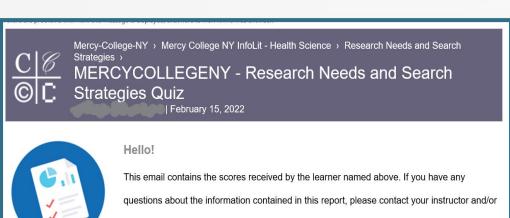


### Discharge Instructions

- ▶ Pancreatitis may develop again
- Low fat diet
- ▶ For the first 5 days give frequent meals to encourage GI motility
- ▶ Give medication as prescribed:
  - Ondansetron
  - ▶ Enrofloxacin
  - ▶ Metronidazole



### Information Literacy



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# Peer teaching/Peer assisted learning



- So you will be presenting your case in order, asking the class questions throughout, similar to what you
  have seen us do in class
- Include a brief review of the disease process and how the case applies at the END of the case YOU WILL LOSE POINTS IF YOU DISCUSS THE DISEASE FIRST
- Compile this information into a case for your patient and disease process. Be creative and tell a story
- Finally, you will be asked questions by ME and your classmates. The ENTIRE class will be graded on your questioning/participation, so it helps you to PAY ATTENTION during these presentations.
- This is an important exercise in communication, professionalism, grammar, spelling, critical thinking, and information literacy (the ability to properly research a topic).

### Supportive research:

- Bruno, P. A., Love Green, J. K., Illerbrun, S. L., Holness, D. A., Illerbrun, S. J., Haus, K. A., Poirier, S. M., & Sveinson, K. L. (2016). Students helping students: Evaluating a pilot program of peer teaching for an undergraduate course in human anatomy. *Anatomical sciences education*, 9(2), 132–142. https://doi.org/10.1002/ase.1543
- DelNero, T., & Vyas, D. (2021). Peer Teaching in an Interprofessional Education Activity Focused on Professional Skills Development. *Pharmacy (Basel, Switzerland)*, 9(2), 112. <a href="https://doi.org/10.3390/pharmacy9020112">https://doi.org/10.3390/pharmacy9020112</a>
- Yu, T. C., Wilson, N. C., Singh, P. P., Lemanu, D. P., Hawken, S. J., & Hill, A. G. (2011). Medical students-as-teachers: a systematic review of peer-assisted teaching during medical school. *Advances in medical education and practice*, 2, 157–172. <a href="https://doi.org/10.2147/AMEP.S14383">https://doi.org/10.2147/AMEP.S14383</a>





# Anesthetic Complications

Dr. Lisa Schenkel



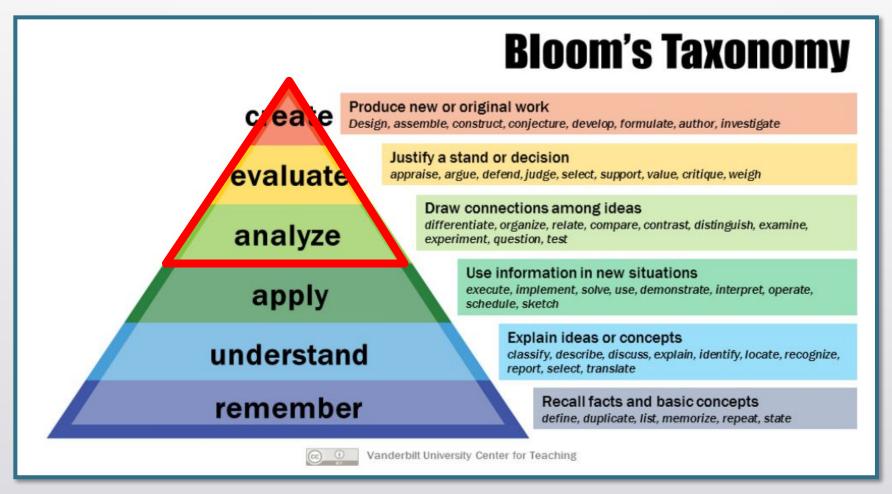
### Anesthetic Monitoring Record Group Project





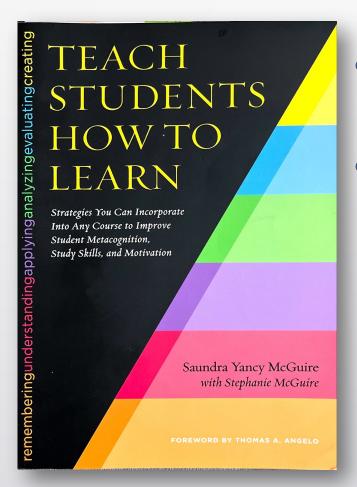


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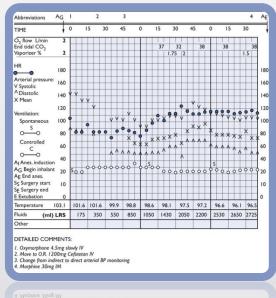




## Anesthetic Monitoring Record Group Project

### Project Preparation

- Submission of two completed anesthetic logs
- Flipped class pre-project warm-up
  - IFA quizzes
  - Anesthesia log case study
- Each group assigned 2-3 logs



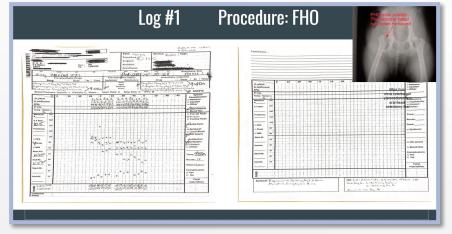


### Project

- For each log, each group must determine:
  - Does log provide adequate and accurate picture of patient status?
  - What additional monitoring approaches may have provided a more complete picture of patient status?
  - Did any anesthetic complications arise?
  - How well suited were the anesthetic and analgesic protocols for the patient?







### **Presentation**

- Each group presents their findings to the class
- Q&A following presentation
- Each group member must be prepared to answer any question on all assigned logs



### **Project Grade**

- Professional presentation
- Log analysis and support of findings
- Ability to develop patient specific protocols
- Discussion
- Class participation
- Peer review







**Any Questions?** 





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