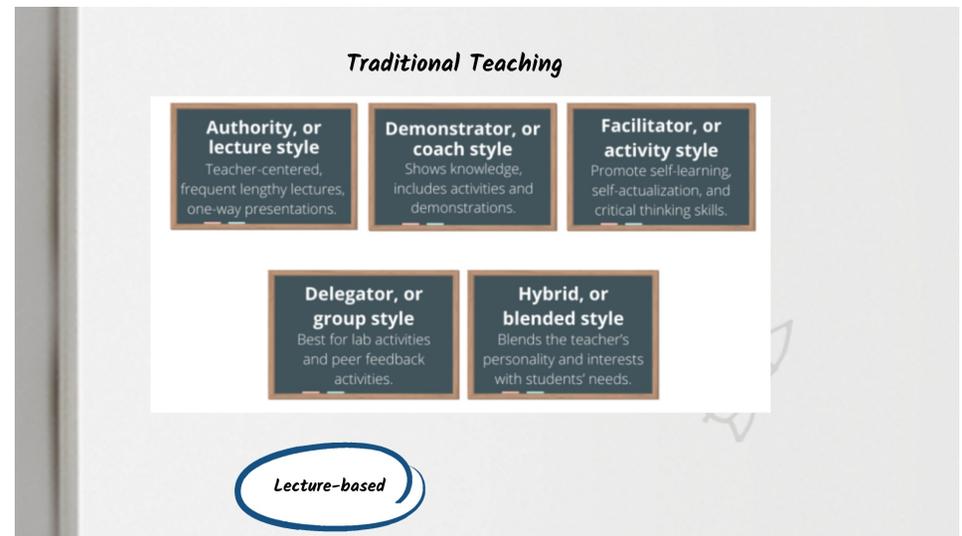
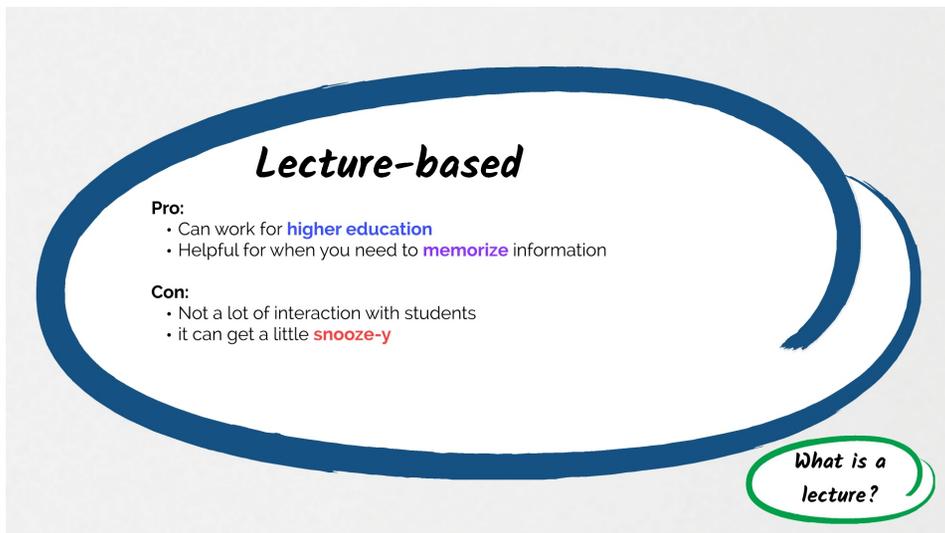


1.



2.



3.

Are Lectures Effective?

Yes, but...

- Research shows that information is more easily learned when it is **linked to what one already knows**.
- When you **build your lecture**:
 - introduce new topics with a **review** of material that came before
 - Use **examples that are relevant**
 - Use good transitions
 - Use slides or board with **key points**
 - Use **conclusion** of a summary
 - Important **not** to **READ** from slides



4.

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 - Use **conclusion** of a summary
 - Important **not** to **READ** from slides



Utilize more **ACTIVE** Learning such as **Dialogic Learning!**

5.

Lecture-based

Pro:

- Can work for **higher education**
- Helpful for when you need to **memorize** information

Con:

- Not a lot of interaction with students
- it can get a little **snooze-y**

What is a lecture?

6.

Traditional Teaching

Authority, or lecture style

Teacher-centered, frequent lengthy lectures, one-way presentations.

Demonstrator, or coach style

Shows knowledge, includes activities and demonstrations.

Facilitator, or activity style

Promote self-learning, self-actualization, and critical thinking skills.

Delegator, or group style

Best for lab activities and peer feedback activities.

Hybrid, or blended style

Blends the teacher's personality and interests with students' needs.

Lecture-based

7.

DIALOGIC TEACHING HARNESSSES THE POWER OF TALK

Traditional

Examples and Experiences

Dialogic Teaching

Steps for the future

Beth Anne, CVT, RVT, CFE, CCFP, CTP, FT



We rise by lifting others

8.

DIALOGIC TEACHING

- **INTERACTIONS:** ENCOURAGES STUDENTS TO THINK, AND TO THINK IN DIFFERENT WAYS
- **QUESTIONS:** INVITES MUCH MORE THAN SIMPLE RECALL
- **ANSWERS:** ARE JUSTIFIED, FOLLOWED UP AND BUILD UPON
- **FEEDBACK:** INFORMS AND LEADS THINKING FORWARD
- **CONTRIBUTIONS:** ARE EXTENDED RATHER THAN FRAGMENTED

Methods

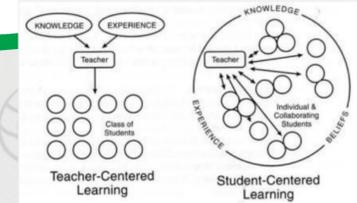


9.

DIALOGIC TEACHING

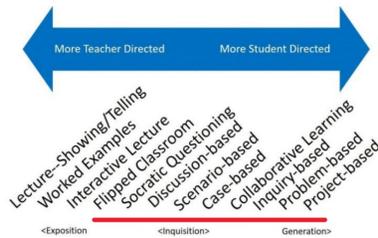
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Methods



10.

Methods



Methods

Methods

- Class Meets Once a Week, Students Learn Everyday!**
1. Teacher **Availability**
 2. Keep Students Engaged **Everyday**
 3. **Show Your Passion!**

Methods

11.

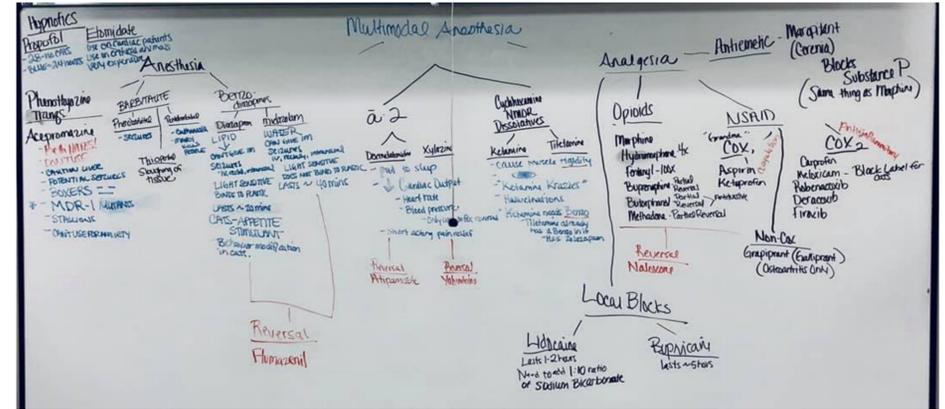
12.

Interactive Lecture

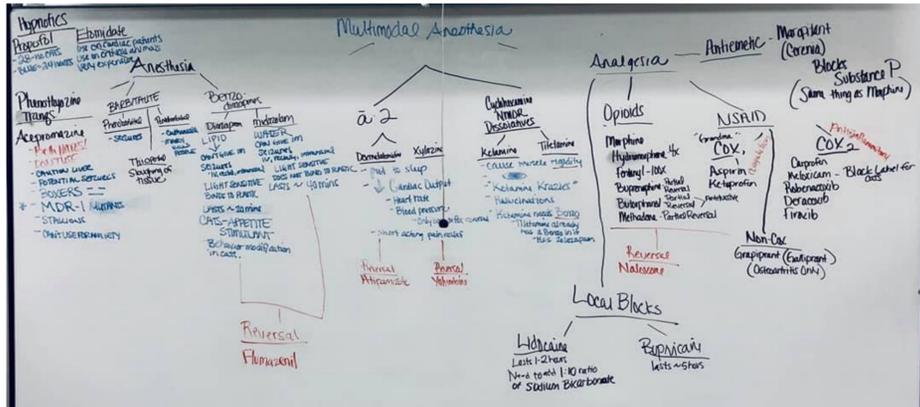
- Beginning of class
 - Use groups
 - Brainstorm
 - Post problems
- Middle of class
 - Pause
 - Student expert
 - Take a vote/discussion
- End of class
 - "One minute" paper
 - Discussion



13.

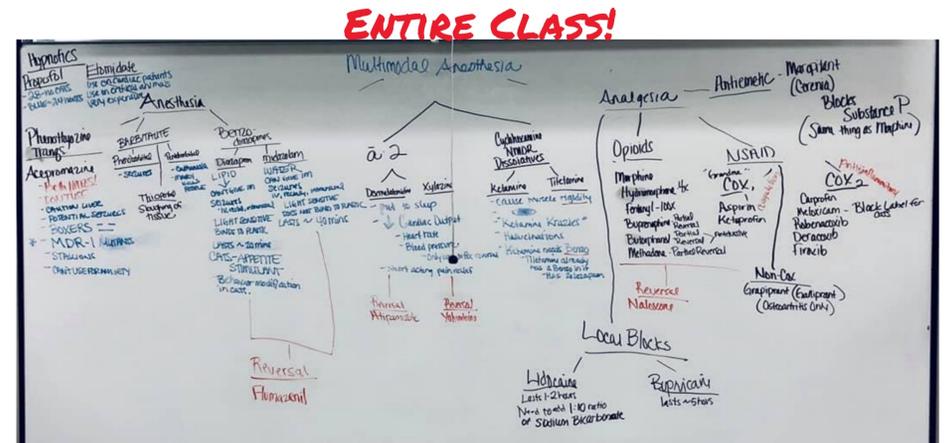


14.



Anesthesia Tutoring

15.



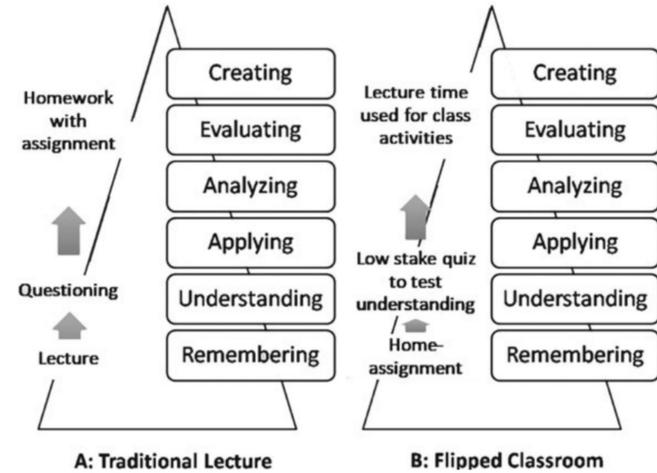
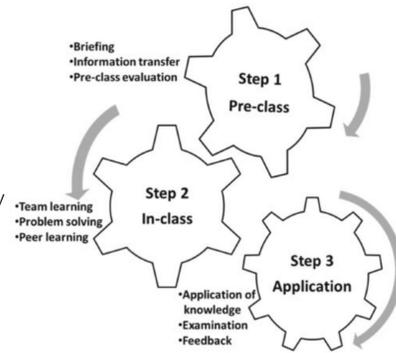
Anesthesia Tutoring

16.

FLIPped Classroom

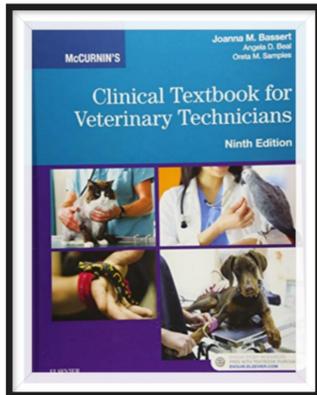
- Flexible environment
- Learning cultural shift
- Intentional content
- Professional Educator

- Ideology built upon flipping Bloom's taxonomy
- Benefits:
 - Great for online learning
 - Allows for classroom application
 - extends learning opportunities



17.

Pre-Class



Fluid Therapy Notes
Beth Anne, CVT, CFE, CCFP, CTP Name: _____

Please read Chapter 25 from McCurmin's Textbook and answer the following questions to the greatest detail.

- 1.) The body is made up of how much TBW (total body water)?
- 2.) TBW is spread across what spaces? One of these spaces is then divided into what two additional spaces?
- 3.) What can move freely across the vascular endothelium but cannot move across the cell membrane? What can move across all barriers?
- 4.) How much electrolyte solution will remain in the vascular space when given?
- 5.) What solution will stay in the vascular space?
- 6.) Colloid solutions may have the ability to increase what?
- 7.) What is the newer synthetic colloid dose per McCurmin's textbook?
- 8.) Too many synthetic colloids can have what potential side effect? What is the most recent concern regarding hydroxyethyl starch solutions?
- 9.) Hypovolemic shock would be if an animal lost about what percentage of blood volume?
- 10.) Name the 3 phases of Fluid Therapy. Describe what each phase is, and give the formulas for dogs and cats for each phase.

19.

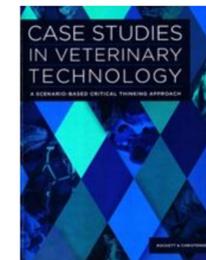
18.

In-Class

You all are getting more knowledgeable everyday in veterinary medicine. It is probably becoming more common that people ask you questions about their "fluffy" pet. The more you watch these medical shows on TV, the more you find the errors with their medical knowledge.

For this in class assignment, I would like to see your GROUP (4 people) knowledge. Use the knowledge from reading this article, your personal knowledge, treating your peers, or even the knowledge of your favorite TV shows to complete the following questions. We will compare all of our results during lab on Tuesday to see how accurate we truly are. Make sure to be thorough when thinking about Emergency and Critical Care, especially when dealing with CPR. Every second does matter!

- 1.) How many roles are involved in a CPR? What would their jobs be? Is there such a thing as too many people being involved?
- 2.) What should be stocked in a crash cart? List each and every item, including drugs.
- 3.) In what order would you do resuscitation?
- 4.) How many breaths a minute do you give a patient during CPR?



- 5.) From greatest to least concentration of oxygen rank the following (greatest- 9/least)
 - a.) _____ mask
 - b.) _____ oxygen cage
 - c.) _____ flow by
 - d.) _____ endotracheal tube
 - e.) _____ nasal prongs
 - f.) _____ nasopharyngeal
 - g.) _____ oxygen hood
 - h.) _____ room air
 - i.) _____ mouth to snout
- 6.) What 5 drugs can be placed down the endotracheal tube if an IV catheter is non patent?
- 7.) If radiographs are not possible due to your patient's critical state, what is another good diagnostic tool to use? Why can this be just as helpful if not even more helpful than radiographs in an emergency?
- 8.) Describe where you would start chest compressions on a Labrador, french bulldog, and cat.

20.

After Class???

After Class???

- **Application**
 - Homework
 - Lab
- **Project**
 - Test/Quiz
 - **Hybrid** work online school shell
 - Relate to **REAL LIFE** problems

21.

After Class???

- **Application**
 - Homework
 - Lab
- **Project**
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22.

After Class???

- **Application**
 - Homework
 - Lab
- **Project**
 - Test/Quiz
 - **Hybrid** work online school shell
 - Relate to **REAL LIFE** problems



23.

24.

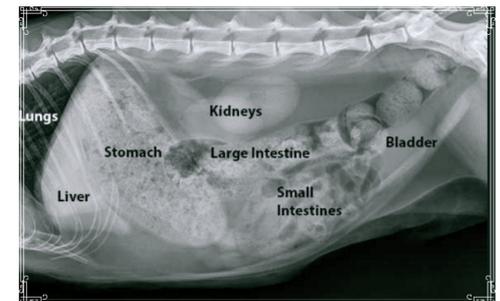
- Socratic Method**
- Questioning method to build upon **additional questions**
 - Purpose is to **not** give student the **actual answer**, but to guide their **critical thinking**
 - Allow for **wait time**
 - Engage other students on responses
- Discussion Strategies:**
- Set stage for discussion by setting expectations
 - **Participation points?**
 - Explain purpose
 - Start early on
 - **Lower social barriers** and reduce resistance to participate
 - Consider **room arrangement**, and encourage **name learning**



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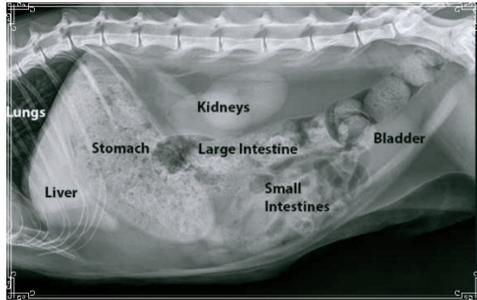
Scenario-based/ Case-based

- How can we share cases?



Scenario-based/ Case-based

- How can we share cases?
 - Case Study book
 - Inventing cases
 - Evaluating **videos**

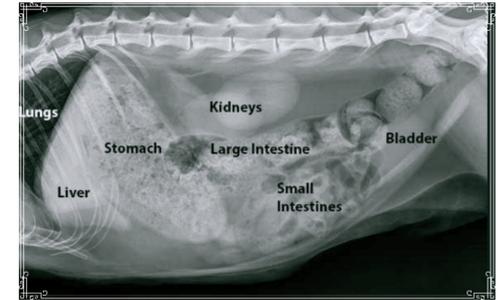


29.

Scenario-based/ Case-based

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Good and Bad

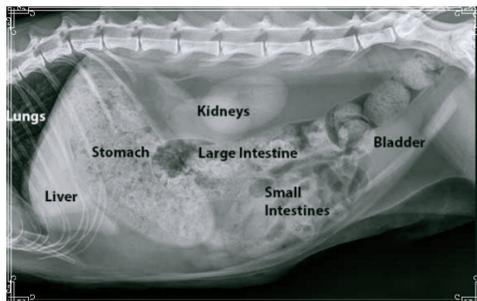


30.

Scenario-based/ Case-based

- How can we share cases?
 - Case Study book
 - Inventing cases
 - Evaluating **videos**

Good and Bad ?



31.

Collaborative Learning

- using groups to enhance learning through **working together**
- two or more learners work together to **solve problems, complete tasks**, or learn **new concepts**
- be aware of potential disadvantages from **group dynamics**
- important to **come together** as a group for discussion

Surgery Reflection Assessment

Name _____	
How was your surgery yesterday with your patient? (What did you give? What was your procedure?)	What could have been better with your patient? What were your difficulties with your patient?
What could you have done differently with your patient?	What do you feel the outcome would have been?

32.

Project-based

33.

Project-based

- students gain knowledge and skills by working for an **extended period of time** to investigate and respond to an authentic, engaging, and **complex question, problem, or challenge**.
- focuses on enabling student to face **real world situations**
- impacts the development of **interpersonal skills**
- develops greater depth of understanding the **concepts** and **CREATIVITY**
- determines **in depth knowledge** and experience of the students
- an effective way of including **technology**

Conservation Project

The focus of this topic is on the importance of conservation and value of biodiversity in ecosystems, and the consequences of reducing biodiversity (example: through invasive species). There are currently many species of organisms which are endangered/threatened and ultimately going extinct. There have been five mass extinctions in the history of life on Earth and we are currently in the midst of the sixth, which is the result of human activities.

Part of our jobs as CVTs is to understand biodiversity and Ecology. We must speak for all animals and critters. For your project, I would like you to research a species that is on the endangered/ threatened list. You will be presenting to your class these objectives below in a presentation. This presentation will be due **Monday, Week 8**.

Only one person can choose one species. If you are set on having a certain species, make sure you choose that species and notify your instructor ASAP. You will have a project check on **Monday, Week 4**, so bring your projects with you on that day.

Scientific name (correct Genus and species)	/2
Common name	/1
Location/characteristics of natural ecosystem	/6
Causes/reasons for decline	/6
Specific characteristics	/4
Species is different from #1 (plant, mammal, amphibian)	/1
Habitat	/6
How was it brought here?	/4
Why is it considered to be a problem?	/6
How can we save it?	/10
Cost to save the species?	/4
Cost on the impact on the economy or ecosystem	/6
Medical ways we can help	/5
Medical ways this species may help	/4
Creativity	/10
Organization	/15
Neatness and Grammar	/15
Audience Engagement	/10
Citations	Pass/Fail

Presentation Total: _____/115

35.

Project-based

34.

Project-

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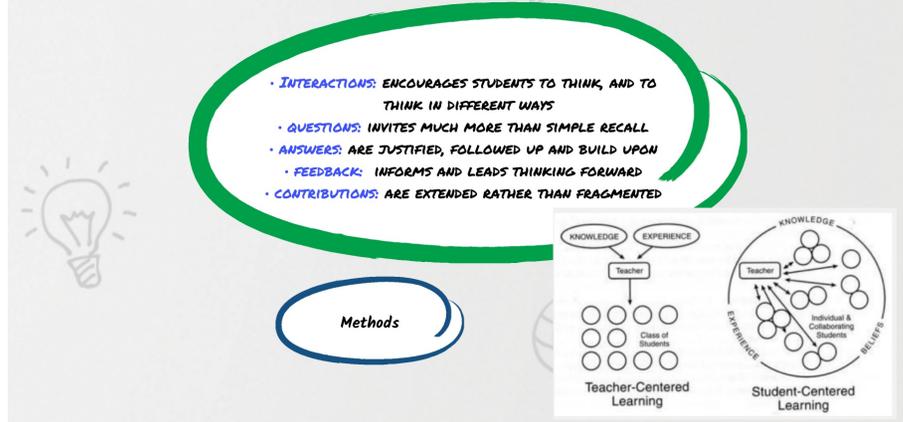
36.

Methods



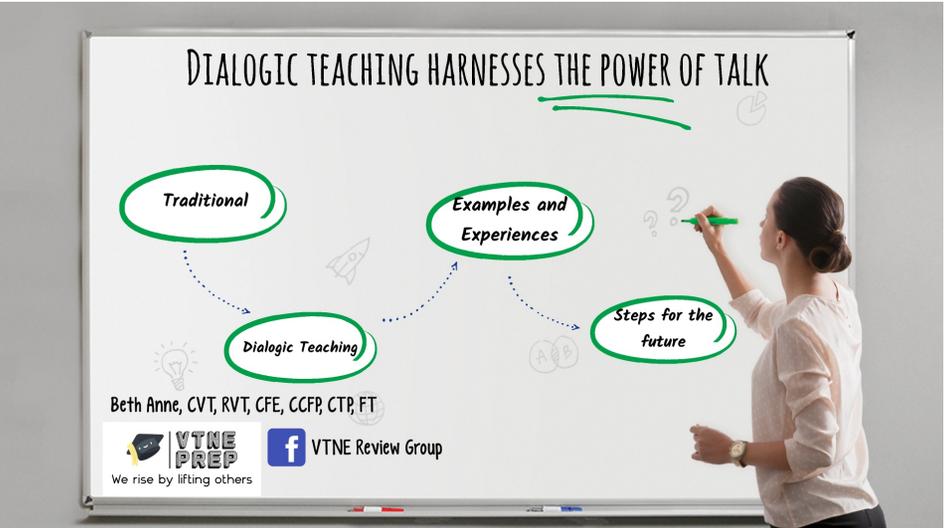
37.

DIALOGIC TEACHING



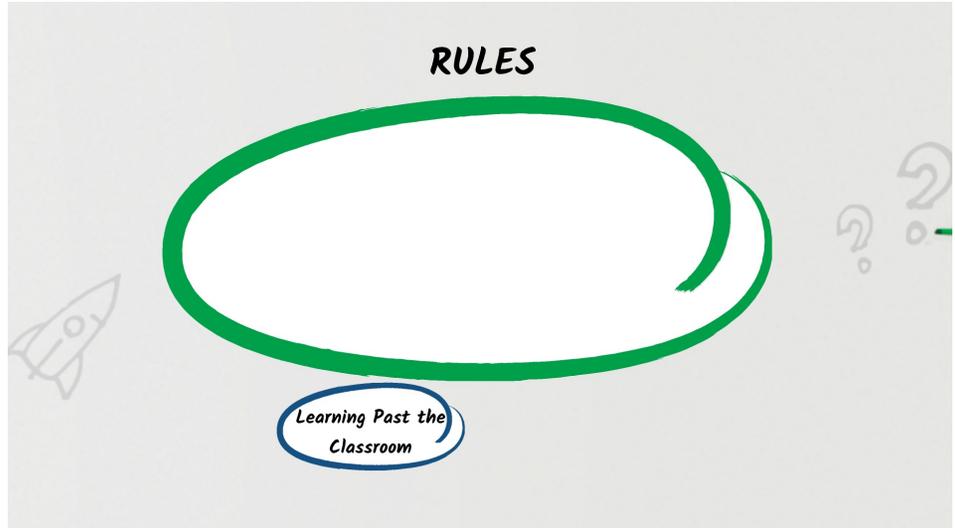
38.

DIALOGIC TEACHING HARNESSSES THE POWER OF TALK



39.

RULES



40.

RULES

- Make class **FUN** while learning
- **PUSH** your students further than standard expectations
- **Every student matters!!!**
- You commit to teaching your classes **better** than the time before

Learning Past the
Classroom

41.

RULES



Lea
Classroom

42.

RULES



Lea
Classroom



43.

RULES



Lea
Classroom



44.

Examples:

- Class that learned:
 - IV catheters, blood draws
 - Fluid therapy
 - Heart worm testing
 - COHATS
 - Nutrition
 - Emergency and Critical Care
 - CPR



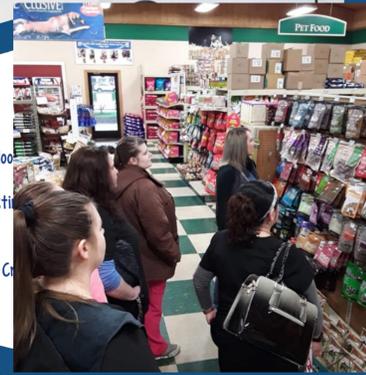
Volunteered:

- Low cost clinic to practice skills
- Visited local feed store to research first hand food and treats

45.

Examples:

- Class that learned:
 - IV catheters, blood draws
 - Fluid therapy
 - Heart worm testing
 - COHATS
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 - Emergency and Critical Care
 - CPR



- practice skills
- store to research first hand food and treats

46.

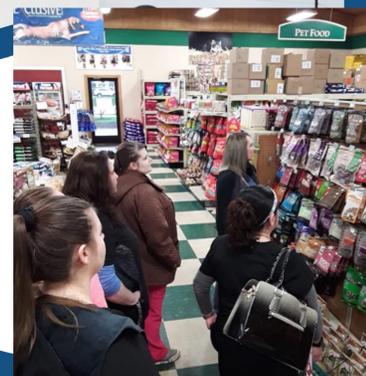
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 - Emergency and Critical Care
 - CPR



47.

Examples:



48.

Examples:



Encourage Continuing Education Now!



Rat Names and Rodent/Rabbit Enrichment



Rat Names and Rodent/Rabbit Enrichment



How do you get your students to remember their anesthetic drugs?

Rodent Enrichment

Expanding an animal's options for species-specific behavioral expression can positively affect both physiological and psychological well-being. Given that each species evolves to maximize its chances for survival, innate behaviors would logically favor biological homeostasis and enhance physical health. At the same time, enrichment options can enhance subjects' mental health by providing appropriate avenues for instinctive behaviors and preferences that may otherwise be expressed abnormally or not at all. Static objects and structures not previously encountered may provoke a novelty effect and may tend to elicit decreased behavioral responses with repeated or prolonged exposures. Response-contingent enrichment objects (i.e., items the animals themselves can alter) are often most effective at eliciting a novel interactive response.

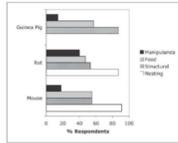
Our rodent enrichment program is: structure and substrate, manipulanda, novel foods, social contact, and other novel types like music.

Structure and substrate include any objects or parameters of an animal's enclosure, including its size and shape, that allow an animal to isolate itself into different microenvironments, experience varied textures or materials, or express natural patterns of locomotion. These enrichment strategies are perhaps the most commonly associated with laboratory rodents, and include nesting materials, running wheels, and hiding shelters.

Manipulanda include any objects that can be altered by an animal or encourage it to engage in fine motor movements, such as wooden blocks or prefabricated plastic chew toys.

Novel Foods: Fruits, vegetables and grains may differ in taste, texture, or desirability, or may require the animals to forage actively or to process the diet (e.g., spreading small bits of foods through bedding material has been thought to encourage foraging).

Social contact can consist of any range of interactions between individual animals or people, from fully commensurate housing to mere visual contact or auditory communication. Student interaction of 15 minutes 4 times a day.



Ref: <https://academic.oup.com/farjournal/article/46/2/148/910186>

Rat Names and Enrichment



How do you get your students engaged?

gs?

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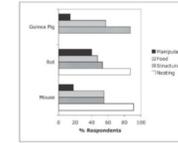
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How do you get your students engaged?

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Rodent Enrichment

Rat Names and Enrichment



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Popcorn and a Movie!

- Watch documentaries and enjoy great discussion
- Encourage **questions!**
- Movie doesn't have to be 100% in what **YOU** believe
 - Paw Project
 - Pet Fooled
 - Through a dog's eyes
 - My Bionic Pet



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57.

Valued Guest Speakers

- Previous students are the **BEST** guest speakers!
- Look for someone **well-known** within the community
- Do a **field trip** with a guest speaker as a **tour guide**



58.

Applied Cases

- Externs pick **ONE case** to focus on
- Present to class on **last day**
 - Signalment
 - Presenting Problem
 - Case is SOAP format
 - Updates through out hospital stay (and any rechecks)
 - Outcome
 - What other options could have been explored (interview with case DVM)
 - What extern's role was this patient
 - What did the extern do that was great, and what did they think that they need to improve on for this case?
 - Why did they pick this case?



59.

Project-based



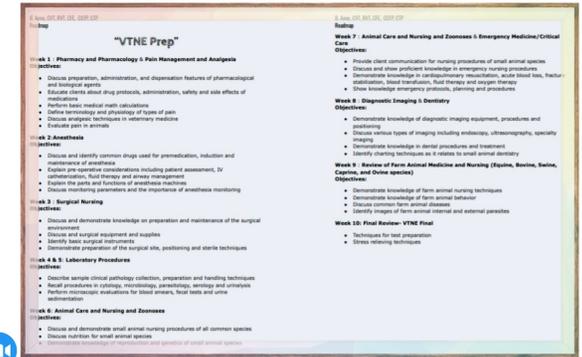
60.

Project-based



Put it all together...

- Fully prepared course
- over-viewing material from entire program
- evaluating questions to determine **BEST** answer
- Build **confidence!**
- Direct to helpful **resources**
 - Start them **networking** right away!
 - VTNE Review Group
 - **LIVE** Zoom Review
 - Mentorship Program

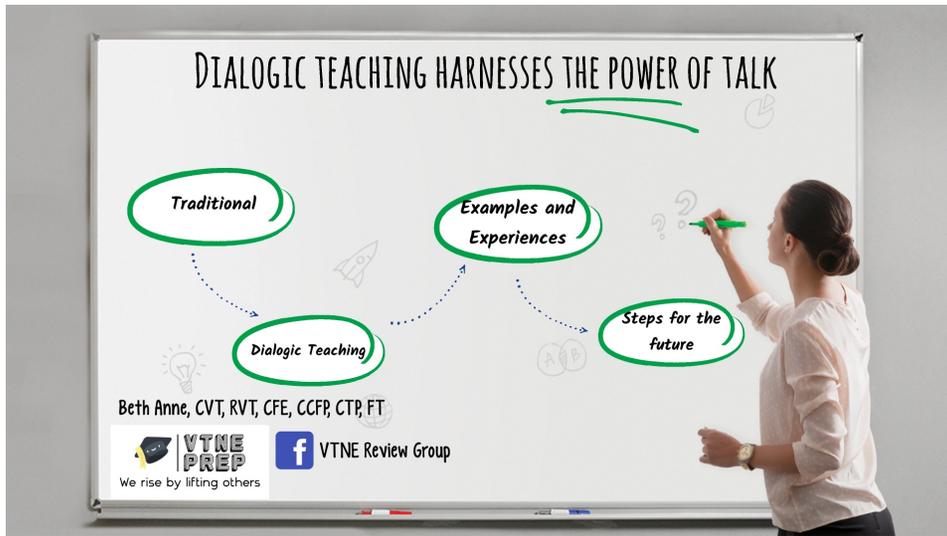


Examples:

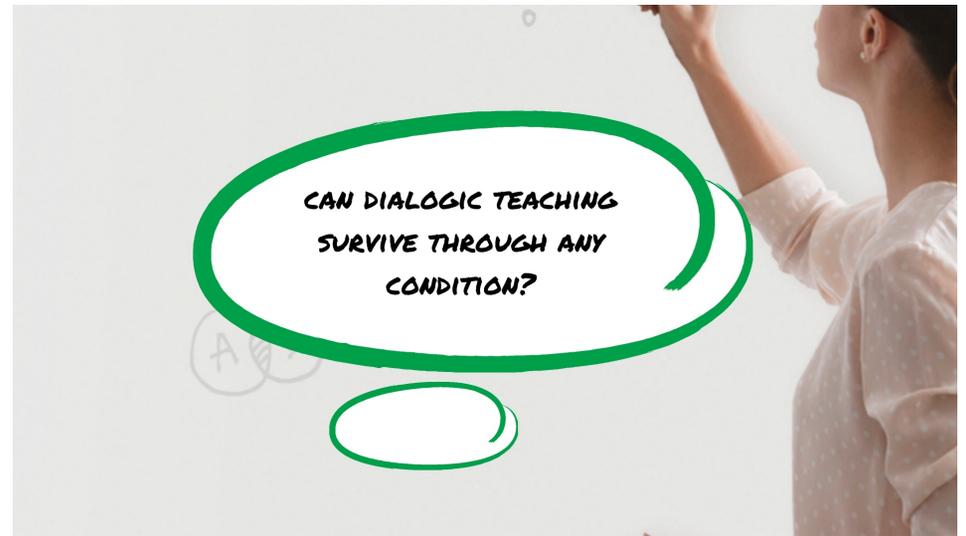


RULES

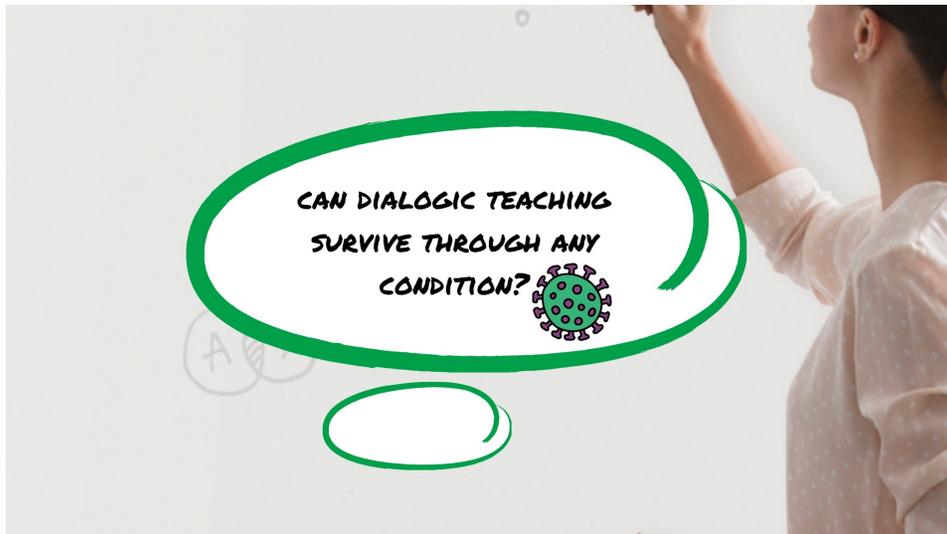




65.



66.



67.



68.

