

Service-Learning Curriculum Unit Plan

Unit/Topic: Learning and Memory	Grade Level: 12th Grade
<p>Service Idea: (Provide Description)</p> <p>Psychology students will use the knowledge gained from the learning and memory unit to assist their fellow Tri County High students with learning, memory, and testing. The service component of this lesson is used as a culminating project to assist in evaluating learning, not as a teaching method or strategy.</p>	
<p>1. Content Standards/Grade Level Content Expectations: (Identify learning outcomes to be addressed)</p> <p>IVB-5: Tips to improve memory</p> <p>IVA-3: Principles of operant conditioning</p>	
<p>2. Students will understand that.... (What are the enduring understandings?)</p> <ul style="list-style-type: none"> -process of how operant conditioning works -how a Skinner box works -schedules of reinforcement -reasons for forgetting -tips to improve memory 	<p>3. Essential Questions to Guide Learning & Inquiry: (Turn understandings into essential questions.)</p> <p>Why do we forget things? How can we improve our memory? How does operant conditioning work? How does punishment and reinforcement affect behavior?</p>
<p>4a. Students will know.... (What is the content knowledge focus?)</p> <ul style="list-style-type: none"> -Skinner -Shaping -reinforcement -punishment -recall -recognition -relearning 	<p>4b. Students will be able to do.... (What are the skills?)</p> <p>Improve their own learning Assist others to improve their learning Demonstrate memory strategies Generate mnemonic devices, etc.</p>

Assessment Evidence	
<p>5a. Performance Task: (What will students do to demonstrate their learning?) Complete a service learning project, as well as a unit test and a few quizzes</p>	<p>5b. Other Assessment Evidence: (Describe formative/on-going/other summative assessments.) Bell ringer questions are asked each day, as well as class discussion and class review games.</p>
<p>5a. Performance Criteria: (Provide checklists, rubrics, or criteria.) Service project will be graded based on participation, a group evaluation, and personal evaluation.</p>	<p>5b. Other Assessments Criteria: (Describe criteria for other assessments.) N/A</p>
<p>Learning Plan: (Develop a series of lessons/learning activities.) (Give enough detail for another teacher to follow.) (Consider the 5 Components of Service-Learning: Investigation, Planning & Preparation, Action, Reflection, Demonstration of Results & Celebration.)</p>	
<p>A. Steps for Students:</p> <ul style="list-style-type: none"> • Lead Activity (Introduce desired results, ask essential question, connect with student experience, begin investigation & pre-reflection) • Student-centered learning steps (Detailed sequencing of lesson; specify formative assessment during practice and summative assessment in conclusion. Include planning & preparation, action,& reflection) • Closure (Revisit enduring understanding/essential question. Include reflection & demonstration of results & celebration) 	<p>B. Notes for Teacher: (What do you need to remember to do?)</p>
<p>C. Materials Needed: Sniffy the virtual rat software The Office – season 3, episode 16 Lemonade Water sprayer Flyswatters Poster board and other art materials</p>	
<p>D. Approximate Time for Unit: 16 school days, 70 minute classes</p> <p>Day 1 Bell work: dot problem Activity: secret path in the hallway Lecture: Pavlov Activity: lemonade dogs Video clip: the office – season 3, episode 16 Group Assignment: stimulus and response Homework: Taste aversion article and classical conditioning assignment</p>	

Day 2

Bell: classical conditioning problem from worksheet

Discuss article

Correct assignment

Demonstration: classical conditioning (water)

Lecture: classical conditioning

Activity: classical conditioning flashcards

Assignment: classical conditioning

Day 3

Bell work:

Correct assignment

Activity: flyswatter classical conditioning

Quiz: classical conditioning

Lecture: operant (begin by discussing cause and effect)

Activity: shape behavior of 3 students

Read: Training kids to kill article

Assignment: one page response to article

Day 4

Bell

Discuss article

Lecture: operant

Activity: reward and punishment skits

Assignment: reinforcement and punishment

Day 5

Bell

Lecture: operant

Activity: maze learning

Assignment: schedules of reinforcement

Extra time: flyswatter reinforcement and punishment

Day 6

Bell work:

Quiz

Lecture: observational learning

Assignment: compare and contrast learning posters (computer lab)

Assignment: TV aggression observation (due day of review)

Assignment: learning observation logs (due day of review)

Day 7

Bell

Activity: Sniffy the rat

Assignment: posters (computer lab)

Assignment: first-person rat narratives (2 days)

Day 8

Bell

Sniffy the rat

Assignment: posters (assemble in room)

Day 9

Bell

Sniffy the rat

Assignment: rat narratives

Assignment: posters (assemble in room)

Day 10

Bell: What is your first memory?

Demonstration: show poster of person, ask for description after it's covered

Lecture: memory and activities

Assignment: service learning project

Day 11

Bell work:

Lecture: Memory and activities

Assignment: service learning project

Day 12

Bell work:

Lecture: memory and activities

Assignment: service learning project

Day 13

Bell

Lecture: memory and activities

Assignment: service learning project

Day 14

Bell work:

Lab: memory stations

Assignment: service learning project

Study guide

Day 15

Bell work:

Discuss learning observation logs

Discuss TV aggression observation findings (use questions on pg. 175)

Review game

Day 16

Bell work:

Test

Assignment: personality vocabulary

E. Resources:

Psychology: Principles in practice text

I've included some of my notes, assignments, etc. I've taken a lot of ideas from the Internet, so I do not claim to have authored all of the scenarios.

Lesson 1		
Lesson Essential Question(s):	Lesson Knowledge:	Lesson Skill(s)
What is classical conditioning?	Pavlov Process of classical conditioning	Differentiate between stimulus and response
<p>1. Lesson Opener:</p> <p>Students will complete a bell ringer. It is a connect-the-dots thinking problem. Then take students into the hall for a group activity. Make a secret path in the tiles ahead of time, and have them figure it out as a class. I have one person try at a time, and do not allow talking. Then take them back to the classroom and relate the activity to the definition of learning.</p> <p>2. Transition:</p> <p>Lecture about Pavlov. Give each student some lemonade drink mix. They should put some in their mouth each time you say Pavlov. At the end, say Pavlov and don't get the lemonade. Some students will be able to taste it in their mouth. This is one activity to demonstrate classical conditioning.</p> <p>3. Activity:</p> <p>Show video clip from "The Office" and have them relate to Pavlov's original experiment. Give them an assignment differentiating between stimulus and response in scenarios.</p> <p>4. Lesson Wrap-Up:</p> <p>Read taste aversion article and complete classical conditioning assignment.</p> <p>5. Additional Lesson Notes:</p>		

Lesson 2

Lesson Essential Question(s):

What is operant conditioning?
How does it work?

Lesson Knowledge:

Shaping
Reinforcement
Punishment

Lesson Skill(s)

Differentiate between the parts of the classical conditioning process.

1. Lesson Opener:

Use a bell ringer question, and then correct assignment from the previous night. Discuss any questions that may arise from the class. Play the flyswatter game. Teacher reads classical conditioning scenarios and asks what it is an example of. Students swat unconditioned stimulus, conditioned response, etc., which are in boxes on the board.

2. Transition:

Students take a quiz on classical conditioning. Teacher gives a lecture on operant conditioning, including shaping.

3. Activity:

Choose three students and send them into the hall. Have the class choose three behaviors for them to perform. Invite the students back to the class one at a time. Use shaping by clicking a pen on a desk to shape the behavior of the students. This is a fun and easy to understand demonstration.

4. Lesson Wrap-Up:

Read "Are we training our kids to Kill?" article, and write a one page response.

5. Additional Lesson Notes:

Lesson 3**Lesson Essential Question(s):****Lesson Knowledge:****Lesson Skill(s)****Principles of manipulating Sniffy
Contrasting learning****Manipulate Sniffy the rat****1. Lesson Opener:**

Students will complete a bell ringer assignment, and then head to the computer lab.

2. Transition:

Students should be introduced to the Sniffy software, and how to use it. Then they should begin training their virtual rat to complete different tasks.

3. Activity:

Students will work in groups of three people to complete a learning comparison poster. They will divide the poster into three sections; one for operant conditioning, one for classical conditioning, and one for observational learning. They will include the researcher, and explanation about how it works, pictures of examples in people, and animals, as well as anything else the teacher feels is important.

4. Lesson Wrap-Up:

Begin working on a “first-rat” narrative about the experiences of Sniffy the virtual rat as directed by each student. Comment on the rat’s experiences from the rat’s point of view.

5. Additional Lesson Notes:

Lesson 4		
Lesson Essential Question(s):	Lesson Knowledge:	Lesson Skill(s)
What are the three parts of the memory process?	Encoding, storage, retrieval	Follow directions and participate in memory activities
<p>1. Lesson Opener:</p> <p>Students will begin with a bell ringer question. They will write about their earliest memory. After everyone is done, the class will share some of their first memories and how old they were. They will look at the differences in when the earliest memory occurred.</p> <p>2. Transition:</p> <p>The teacher should show the class a large picture of someone. Posters work well, but it's a good idea to get someone who isn't currently really famous. Remove the poster and ask them to write down a description of what they remember about the person they saw. Choose class members to share their descriptions then show the poster again. Introduce the memory part of the unit.</p> <p>3. Activity:</p> <p>Lecture about the principles of memory. Use memory activities to illustrate the concepts that you're teaching students about.</p> <p>Begin a service learning experience to help in evaluating the knowledge obtained by the class through the learning and memory unit. Their object of the psychology class is to share the knowledge that they have gained about how people learn and remember. The goal is to assist TC High students with their classes by giving them tips to enhance their learning and memory. Students will be brainstorming how they will accomplish that goal, then following through with their plans. They will have to cover specific material.</p> <p>4. Lesson Wrap-Up:</p> <p>Students should continue working on the service project in groups.</p> <p>5. Additional Lesson Notes:</p>		

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Lesson 5		
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Lesson Essential Question(s):	Lesson Knowledge:	Lesson Skill(s)
Is violence on TV a problem? What were your findings? Where do you see conditioning in real life?	All unit knowledge for the review game	Accurate observation

1. Lesson Opener:

Students will complete a bell ringer question. Then they will pull out their learning observation logs (handed out on day 6) and share with the class. The observation logs just ask for real life examples of classical conditioning, operant conditioning, and observational learning.

2. Transition:

Students will discuss their findings from the TV aggression observation assignments given on day 6. For this assignment, the class is divided in half. Half of the class will watch two children’s programs and half of the class will watch two adult programs. Each program should be watched for 30 minutes. Students should choose one show that they feel is violent and one show that they feel is not violent. Then they should record all of the acts of both verbal and physical violence that they see in the television program.

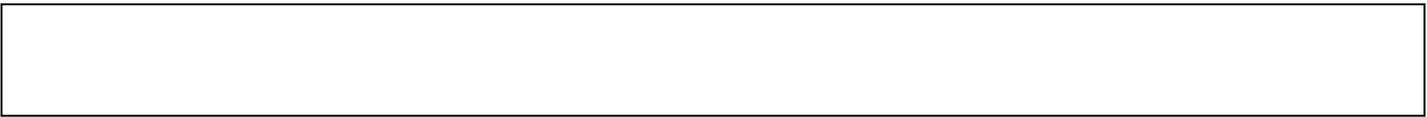
3. Activity:

Students will play a game to review the unit content in preparation for the test. I play a jeopardy style game when I review.

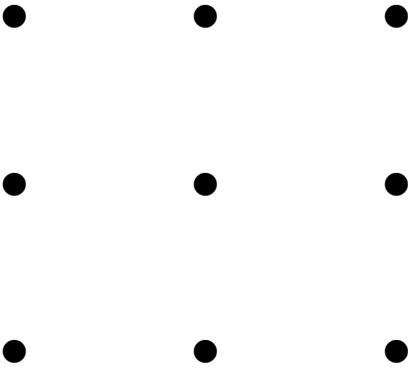
4. Lesson Wrap-Up:

Students should ask any questions that need to be asked and study for the test on the next day.

5. Additional Lesson Notes:



Copy the following figure and see whether you can connect the dots by using no more than four straight lines, without lifting your pencil or pen. A line must pass through each point. If you figure that out try it with only three lines.



CLASSICAL CONDITIONING ASSIGNMENT

Identify the UCS, UCR, CS, and CR in the following examples:

Sam is 3 years old. One night his parents build a roaring fire in the family room fireplace. The fire spits out a large ember that hits Sam in the arm, giving him a nasty burn that hurts a great deal for several hours. A week later, when Sam's parents light another fire in the fireplace, Sam becomes upset and fearful, crying and running from the room.

UCS: CS:

UCR: CR:

At the age of 24, Tyrone has recently developed an allergy to cats. When he's in the same room with a cat for more than 30 minutes, he starts wheezing. After a few such allergic reactions, he starts wheezing as soon as he sees a cat in the room.

UCS: CS:

UCR: CR:

Read the following selections and identify the aspect of classical conditioning at work.

Lucy has flunked algebra twice. Now whenever she sees any kind of math book, she begins to get that same old sick feeling in the pit of her stomach.

Little Suzy is experiencing her first thunderstorm. A bolt of lightning flashes across the sky, but this doesn't bother her; she thinks it's pretty. A second later, however, she just about jumps out of her skin when a tremendous crash of thunder shakes the room.

Glenda tried sushi for the first time when she visited her cousin in San Francisco, and she loved it. Back home in Kansas City she eagerly searched until she found a restaurant that served sushi, but the fish wasn't fresh, so she didn't like it much. On a visit to St. Louis she tried again, but she was disappointed once more. Glenda no longer gets excited by the prospect of eating sushi, unless it's San Francisco sushi, which still makes her mouth water.

On his first day at work at the Joy Ice Cream Shop, Arnold helped himself and overdid it. He got sick and swore he'd never eat ice cream again. True to his word, he stayed off the stuff for the rest of the summer, though he continued working at the shop. For a while it was hard, because the sight and smell of the ice cream made him feel nauseous, but eventually those feelings faded. The following summer Arnold decided to visit his old employer, but as soon as he walked in the door, he felt so sick he had to turn around and leave immediately.

Little Carlos used to get excited whenever Grandpa would come to visit, because Grandpa always brought Carlos some neat new toy. As Grandpa got older, however, he became forgetful. He no longer brings toys when he visits. Now Grandpa's visits don't excite Carlos as much.

Classical Conditioning Stimulus and Response Assignment

1. Fred has a fluffy down pillow with some of the down sticking out of the fabric. When he first tries out the pillow, a piece of down tickles his nose and he sneezes. This happens every time he goes to bed. Soon he sneezes every time he lays down on any kind of pillow.

UCS:

CS:

UCR:

CR:

2. Every time you take a shower, someone in the house flushes the toilet causing the water to turn cold and you become cold. Now every time you hear a toilet flush, you get cold.

UCS:

CS:

UCR:

CR:

3. It is springtime and the pollen from the flowers causes you to sneeze. Soon you are sneezing every time you see a flower.

UCS:

CS:

UCR:

CR:

4. People receiving chemotherapy often vomit during or shortly after the procedure. After several chemotherapy sessions, people begin feeling sick at the sight of the treatment room

UCS:

CS:

UCR:

CR:

5. The smell of food makes you hungry. Soon every time you go into the kitchen, you feel hungry.

UCS:

CS:

UCR:

CR:

Operant Conditioning

Indicate the schedule of reinforcement that would be in effect in each of the following examples:

1. Sarah is paid on a commission basis for selling computer systems. She gets a bonus for every third sale.
2. Juan's parents let him earn some pocket money by doing yard work approximately once a week.
3. Marsha is fly-fishing. Think of each time that she casts her line as the response that may be rewarded.
4. Jamal, who is in the fourth grade, gets a gold star from his teacher for every book he reads.
5. Skip, a professional baseball player, signs an agreement that his salary increases will be renegotiated every third year.

Indicate whether the following selections are examples of positive reinforcement, negative reinforcement, punishment, or extinction.

1. Antonio gets a speeding ticket.
2. Diane's supervisor compliments her on her hard work.
3. Leon goes to the health club for a rare workout and pushes himself so hard that his entire body aches and he throws up.
4. Audrey lets her dog out so she won't have to listen to its whimpering.
5. Richard shoots up heroin to ward off tremors and chills associated with heroin withdrawal.

6. Sharma constantly complains about minor aches and pains to obtain sympathy from colleagues at work. Three co-workers who share an office with her decide to ignore her complaints instead of responding with sympathy.

Learning

Learning: a relatively permanent change in a behavioral tendency that occurs as a result of practice or observation

Performance – demonstrating that learning has occurred

Motivation – goals both inside and outside the organism

Ivan Pavlov

Studying the role of saliva in a dog's digestion

Noticed dogs salivated when he walked in the room, before seeing food

Classical Conditioning – the simplest type of learning

“Learning” generally applies to something more complex

Stimulus – anything that can produce a change or sensation, causes a response

Response – any observable behavior or activity

Process

Unconditioned stimulus – naturally produces a response (food)

Unconditioned response – behavior predictably caused by an unconditioned stimulus (salivating)

Conditioned stimulus – any event that is neutral and doesn't cause the response prior to conditioning (bell)

Conditioned response – behavior like the unconditioned response, but caused by conditioned stimulus (salivating)

John Watson and Little Albert

Little Albert was initially unafraid of a white rat

Watson paired the rat with a loud noise, a hammer hitting a steel bar, which did frighten him

Little Albert became afraid of the rat

Later exposed to a variety of objects similar to the white rat – rabbit, dog, fur coat, Santa Claus mask, Watson's white hair – stimulus generalization

Operant Conditioning

Not all stimuli preceded responses – B. F. Skinner proposed operant conditioning – learning in which voluntary responses come to be controlled by their consequences

For the most part classical conditioning deals with involuntary responses, and operant deals with voluntary responses

Skinner demonstrated that people and animals tend to repeat responses that are followed by favorable consequences

Reinforcement – event following a response increases the tendency to make that response

Used a “Skinner box” to test rats and pigeons
Cumulative recorder records data

Acquisition – established through a gradual process called shaping – the reinforcement of closer and closer approximations of a desired response – key to training animals to do interesting tricks

Extinction – response is no longer followed by reinforcement – some responses are resistant to extinction

Discriminative stimuli – cues that influence behavior by leading you to a probable consequence

Something that is a reinforcer for one person may not be for another

Schedules of reinforcement

Continuous – reinforced every time

Intermittent – reinforced only some of the time

Fixed-ratio – reinforced after a fixed number of responses

Variable-ratio – reinforced after a variable number of responses

Fixed-interval – reinforced after a fixed amount of time

Variable-interval – reinforced after a variable amount of time

Ratio schedules tend to produce more rapid responding

Higher ratio = faster responding – factory workers

Variable schedules tend to produce steadier response rates and a greater resistance to change – gambling

Reinforcement

Positive reinforcement – Response is strengthened because it's followed by a rewarding stimulus

Examples: Good grades, paychecks, promotions, nice cars, attention, flattery

Negative reinforcement – Response is strengthened because it's followed by the removal of an unpleasant stimulus

Skinner box – Shock is sent through the floor, turned off for awhile when lever is pushed

Examples: Rush to get out of the cold, clean to get rid of a mess, give in to children to stop whining, apologize to end an unpleasant argument

Escape learning: Acquiring a response that decreases or ends some aversive stimulus

Skinner box – Two compartments, shock delivers in one, run to the other

Example: Leaving a situation where you were getting picked on

Avoidance learning: Acquiring a response that prevents some aversive stimulus

Skinner box – Turn on light before sending shock, animal moves when they see the light

Example: Quit hanging out where you get picked on

Classical and operant conditioning work together

Warning light becomes a conditioned stimulus and fear a conditioned response

Moving is strengthened through negative reinforcement (reduces fear)

Avoidance learning makes it easier to understand why phobias are hard to extinguish

Example: Fear of elevators

Acquire fear through classical conditioning

Experience it when you need to take an elevator

Take stairs and receive negative reinforcement

Hard to extinguish for two reasons

1. Negative reinforcement strengthens response
2. Never exposed to conditioned stimulus so you can see there's nothing to fear

Punishment

Reinforcement – Strengthens the tendency of making a response

Punishment – An event following a response that weakens the tendency to make that response

Skinner box – A shock is delivered when the lever is pressed, rapid decline in lever-pressing behavior

Example: Spanking a child, no television watching, teasing when you wear a new outfit, going to a restaurant and eating a terrible meal

Negative reinforcement and punishment are often mixed up, but they have opposite effects on behavior

Problem: Even when punishment weakens a response, it can have side effects

Strong emotional responses such as fear, anxiety, anger, and resentment

Physical punishment leads to an increase in aggressive behavior

Can classical and operant conditioning account for all of our learning?

Observational learning occurs when a person or animal's response is influenced by observing others - also called modeling

Researched extensively by Albert Bandura

Bandura doesn't believe that observational learning is totally different than conditioning

People and animals are just conditioned vicariously through another

Examples:

- Hagglng with a salesmen when buying a car
- Spanking your children

Memory

Three key processes involved in memory

1. Encoding – forming a new memory code
2. Storage- maintaining encoded information in memory over time
3. Retrieval – recovering information from memory storage

Have you ever forgotten someone's name 30 seconds after first meeting them?

Encoding

Generally you need to pay attention to information if you want to remember it

Attention – filter that screens most of what's going on – select things get through

Levels of processing – the deeper you process something the more likely you are to remember it

Elaboration – linking a stimulus to other information at the time of encoding - Examples enhance memory even if not self-generated

Visual imagery – images to represent words to be remembered also helps – remember fewer abstract words

Storage

Information-processing theories – several variations – memory subdivided into three separate storage units

Sensory Register – preserves information in original sensory form for a brief time

Additional time to recognize stimuli – about 1/4 second

Examples: spinning light, asking “what” and answering the question

Short-term/working memory – limited-capacity storage -can maintain unrehearsed information up to about 20 sec.

Can keep it longer if you rehearse it – repetition

Interference from competing material causes loss of information

STM has a small capacity – usually 7 +/- 2

New information will displace old information

Chunking – group of familiar stimuli stored as single unit

Can increase what will fit in STM

Long-term memory – unlimited capacity storage that can hold information over lengthy periods of time

Is LTM permanent? Competing views

Organization of Memory

Researchers have wondered how knowledge is represented and organized in memory

Schemas

An organized cluster of knowledge about a particular object or sequence of events

More likely to remember things that fit into your schema than things that don't

Can lead to memory errors – recall influenced by actual event **and** your schemas

Semantic Networks

Concepts, joined together by pathways that link related concepts

When you think about one word, your thoughts naturally go to other words

Example: In the middle of a conversation and wondering how you got on that topic

Retrieval

Tip-of-the-tongue phenomenon: Temporary inability to remember something you know, w/ the feeling that it's just out of reach

Once a week is the average for most people

Retrieval clues – stimuli to gain access to memories

Context Cues – visiting an old house, going back to a room to remember what you were going to get, eye-witness testimony

Misinformation effect – sometimes reconstructed memories are different because of post-event information

Example: Loftus et al. study – automobile accident

Source-monitoring – figuring out where information came from

An error occurs when something from one source is attributed to another

Some people “remember” seeing something that was verbally suggested

Measures of forgetting

Retention – proportion of material retained

Recall – participants reproduce information on their own

Recognition – participants select information from an assortment of options

Relearning – participants learn information a second time to determine how much time and effort is saved

Why do we forget?

Pseudo forgetting – You never learned

Ineffective encoding – Distractions – phonemic vs. semantic encoding

Decay theory – fades over time – not shown with LTM

Interference theory – competition from other material before or after presentation of material

Retrieval failure – cue isn't similar to encoding of info

Motivated forgetting (repression) – keeping distressing thoughts and feelings in the unconscious

Learning

- 1 Four types of intermittent reinforcement schedules
Fixed ratio and interval, variable ratio and interval
- 2 Relatively perm. change in behavior that occurs as a result of practice/observation
Learning
- 3 Anything that can produce a change or sensation
Stimulus
- 4 Any observable behavior or activity following an event
Response
- 5 Two types of motivation
Inside and outside a person

Vocabulary

- 1 Forming new conditioned responses
Acquisition
- 2 Reacting to similar stimuli the same way
Generalization
- 3 Subject does not respond in the same way to similar stimuli
Discrimination
- 4 Gradual weakening and disappearance of conditioned response
Extinction
- 5 Reappearance of an extinguished response after a period of nonexposure
Spontaneous recovery

Schedules of reinforcement

- 1 Subject is reinforced every time
Continuous
- 2 Subject is reinforced after the same amount of time
Fixed-interval
- 3 Subject is reinforced after an ever changing number of responses
Variable-ratio
- 4 Steadiest response and difficult to break
Variable
- 5 Humans and animals will increase speed
Ratio

Classical Conditioning

- 1 Who pioneered the research?
Pavlov
- 2 Explain his experiment.
- 3 Who did the experiment with little Albert?
Watson
- 4 Explain the experiment

- 5 Scared when almost step on snake rustled out of weeds, now heart races whenever you hear the weeds rustle
UCS – snake UCR – fear CS – rustling weeds CR – fear

Operant Conditioning

- 1 Who pioneered the research?
Skinner
- 2 Explain how a Skinner box works
- 3 Goal of reinforcement
Increase behavior
- 4 Goal of punishment
Decrease behavior
- 5 Rewarding behavior as it becomes closer to the desired behavior
Shaping

Memory

- 1 Putting information into memory
Encoding
- 2 Taking information out of memory
Retrieval
- 3 Being able to filter out most of what's going on
Attention
- 4 Temp inability to remember info you know, w/feeling that it's just out of reach
Tip of the tongue phenomenon
- 5 Stimuli to gain access to memories such as going back into a room
Context cues

Forgetting

- 1 You never really learned the material
Pseudoforgetting
- 2 You try to forget the material
Motivated forgetting
- 3 Fades with the passing of time
Decay theory
- 4 Other material competes with the information for attention
Interference theory
- 5 Phonemic encoding instead of semantic encoding
Ineffective encoding

Informational Processing Theory

- 1 What are the three parts of memory storage according to theory?
Sensory register, short-term memory, long-term memory
- 2 How long does the sensory register hold sensory information?
 $\frac{1}{4}$ second
- 3 How many pieces can be held in short term memory?
 7 ± 2
- 4 How can you increase that number?
Chunking
- 5 Is long term memory permanent?
Debatable

Miscellaneous

- 1 Who pioneered observational learning research?
Bandura
- 2 How is it related to conditioning?
Vicarious conditioning
- 3 Any event that is neutral and doesn't cause the response prior to conditioning
Conditioned stimulus
- 4 Naturally produces a response
Unconditioned stimulus
- 5 Misinformation Effect?
Information after the event can change your memory