Written Assignment 2

Chapters Covering Learning and Memory

Corresponds with Exam 2

In partial fulfillment of the requirements for PSYC 2301
Introduction to Psychology
Houston Community College
Professor: Dr Anderson

Name

Date:

Class Day and Time:

Statement

III. LEARNING

Objective III.1 Define and identify examples of learning.

Define Key Terms

Learning

Exercises

Put a check mark by each example of change that fits the definition of learning.

_____ an infant starts crawling
_____ a three-year-old acquires the ability to recite the entire alphabet
_____ a college student acquires the ability to solve quadratic equations in a college algebra class
_____ an elderly man loses the ability to walk after having a stroke

Objective III.2 Explain the process through which classical conditioning modifies an organism's responses to stimuli.

Define Key Terms

classical conditioning

unconditioned stimulus (UCS)

neutral stimulus

unconditioned response (UCR)

conditioned stimulus (CS)

conditioned response (CR)

stimulus generalization

stimulus discrimination

extinction (in classical conditioning)

spontaneous recovery

Exercises:
1. (Voluntary, reflexive) responses are subject to classical conditioning.

2. In the table below, identify each element in Pavlov's original experiment (food, bell, salivation)

	Stimulus	Response
Unconditioned	**(UCS)**	**(UCR)**
Conditioned	**(CS)**	**(CR)**

3. "Learned" and "acquired" are synonyms for (unconditioned, conditioned).

4. "Natural" and "unlearned" are synonyms for (unconditioned, conditioned).

5. Match each term with its definition:
(1) _____ the disappearance of a response after termination of the conditioned stimulus
(2) _____ exhibition of a conditioned response after exposure to a stimulus that is similar to a conditioned stimulus
(3) _____ sudden reappearance of an extinguished response
(4) _____ response that occurs only after presentation of the original conditioned stimulus
(A) stimulus generalization
(B) stimulus discrimination
(C) extinction (in classical conditioning)
(D) spontaneous recovery.

Objective III.3 Summarize the contributions of Pavlov and Watson to the study of learning.

Exercises

1. (Pavlov, Watson) discovered the principles of classical conditioning in conjunction with his research on the digestive system of dogs.

2. (Pavlov, Watson) demonstrated that human emotional responses can be classically conditioned.

3. (Pavlov, Watson) conducted an experiment known as the "Little Albert" experiment in which an infant was conditioned to fear a white rat.

Objective III.4 Explain the process through which operant conditioning modifies an organism's responses to stimuli.

Define Key Terms

operant conditioning

reinforcer

extinction

generalization

discriminative stimulus

reinforcement

primary reinforcer

secondary reinforcer

Exercises

1. (Voluntary, reflexive) responses are subject to operant conditioning.

3. Identify each change described below as an example of (E) extinction, (G) generalization, (D) discriminative stimulus, or (R) reinforcement

_____ Ms. Jackson starting buying tickets more often after she won $100 playing the lottery.

_____ The baby stopped spitting after her parents started ignoring her every time she did it.

_____ The kids at ABC Elementary get quiet whenever Mr. Jones, the principal, comes into the classroom.

_____ Dr. Smith substituted M&Ms for rat food pellets in her Skinner box experiments and found that the rats responded to the candy in that same way that they responded to the food rewards they were accustomed to.

3. Food is an example of a (primary, secondary) reinforcer.

4. Money is an example of a (primary, secondary) reinforcer.

Objective III.5 Define shaping.

Key Terms

Shaping

successive approximations

Exercises

1. How does shaping change behavior?

Objective III.6 Explain the difference between positive and negative reinforcement.

Key Terms

Positive reinforcement

Negative reinforcement

Exercises

1. Classify each of the following as (P) positive reinforcement, or (N) negative reinforcement:

_____ Bob takes aspirin whenever he gets a headache because the aspirin makes his headache go away.

_____ Dolphins learn to jump out of the water on command in order to obtain food rewards from their trainers.

_____ Ramon cleaned out the garage so that his wife would stop complaining to him about it (Ramon)

_____ Dad gives his 2-year-old anything the girl wants in order to stop her whining. (2-year-old)

Objective III.7 Define punishment and summarize the factors that influence its effectiveness.

Key terms

Punishment by application (positive punishment)

Punishment by removal (negative punishment)

How does each factor in the table influence the effectiveness of punishment?

Factor	Effect on punishment
Timing	
Intensity	
Consistency	

Objective III.8 Define behavior modification.

Key Terms

behavior modification

token economy

Exercises

1. The patients in the Happy Haven psychiatric hospital earn points for cooperating with therapists. They can exchange the points for magazines, snacks, and other items. Happy Haven is using _____ to manage patients' behavior.

2. Ms Jones decided to give a highly active student a sticker every time she noticed that the girl was sitting in her seat and doing her school work. Ms Jones is using _____ to manage the student's behavior.

Objective III.9 Define observational learning and mirror neurons

Key term
Observational learning

Mirror Neurons (see Chapter on Biology and Behavior)

Exercise

Most drivers slow down when they see another driver getting a ticket. This is an example of

IV. MEMORY

Objective IV.1 Explain the information-processing approach to memory.

information processing approach

encoding

storage

retrieval

1. The information-processing approach assumes that the memory system operates similarity to that of a _____.

2. According to the information-processing approach, three processes are applied to information that is taken into the system. These three processes are _____, _____, and _____.

Objective IV.2 Describe the functions and characteristics of short-term memory.

short-term memory

working memory

1. What happens to information in short-term memory?

2. Describe each of the features of short-term memory.

Feature	Description
Capacity	
Duration	

3. Why is short-term memory also known as working memory?

Objective IV.3 Describe the characteristics of long-term memory.

long-term memory

declarative memory

semantic memory

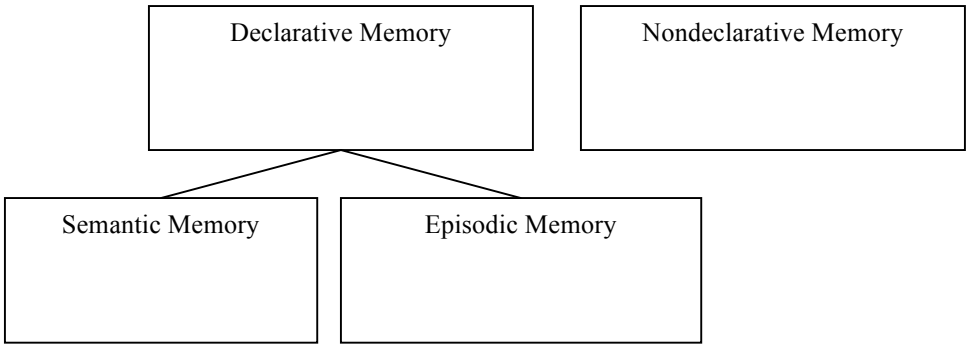
episodic memory

nondeclarative memory

procedural memory

1. What is the capacity of long-term memory?

2. Add definitions to the diagram below.



Objective IV.4 Explain the differences among recall, free recall, cued recall, and recognition.

recall measure

recognition measure

retrieval cues

1. (Recall, recognition) occurs when you remember having seen or heard of a particular piece of information in the past.

2. (Recall, recognition) occurs when you produce a needed piece of information by searching your long-term memory.

3. Classify each question as requiring (C) cued recall or (F) free recall
(1) _____ What are the three basic memory processes?
(2) _____ The three basic memory processes are e_____, s_____, and r_____.

Objective IV.5 Explain the causes of forgetting.

encoding failure (ineffective coding)

decay theory

interference theory

proactive interference

retroactive interference

motivated forgetting

retrieval failure

1. Briefly state the main idea of each theory of forgetting in the table below.

Theory	Main Idea
Encoding failure	
Decay theory	
Interference	
Motivated forgetting	
Retrieval failure	

Objective IV.6 Describe the process of reconstructive memory.

reconstructive memory

1. Explain why memory is not simply a recording of an event or experience.

2. Discuss the accuracy of eyewitness testimony.

Objective IV.7 Explain the functions of schemas in the memory system.

schema

1. Organize the words below into schemas to make them easier to remember in your long term memory Label the schemas (e.g, birthday). Not all words will fit neatly in a schema.

cake
dog
balloon
presents
window
orange
candles
grass
girl
rug

2. How do schemas contribute to distortions in eyewitness testimony?

Objective IV.8

Describe several techniques for improving memory.

Mnemonics

Elaborative rehearsal

Self-references

Visual imagery

Organization

Overlearning

Massed practice

Spaced practice

1. In the list below, write O beside the example of overlearning, M beside the example of the mnemonic, and E beside the example of elaborative rehearsal.
(A) _____ remembering a list of stages by making a word out of the first letters of the names of the stages.

(B) _____ continuing to review new material even after you can recite it with very few errors.

(C) _____ associating the Spanish word "azul" (blue) with the English word "azure" (light blue)

2. When you study *beyond* the point at which you know all of the information you need for an exam, you are engaging in _____.

3. (Massed practice, spaced [distributed] practice) is the most effective way of studying for an exam.