
Chapter 6 Learning

Chapter Overview:

This chapter is concerned with both learned and unlearned behavior. The topics include classical conditioning and operant conditioning, their similarities and differences. Student should understand how acquisition, extinction, spontaneous recovery, generalization, discrimination, and higher-order conditioning can affect learning. They should understand how reinforcement and punishment can produce effects in specific learning paradigms such as reinforcement and omission training, behavior modification, and active and passive avoidance. They should also consider important variables such as independent variables such as practice, schedules and delay of reinforcement, and motivation. They need to be aware of different graphs used to show the results of experiments in learning and how the principles of learning are related to emotional learning, taste aversion, coping versus helplessness, biofeedback and self-control.

Students should also be aware of the biological influences in learning and biological constraints of learning.

Chapter Objective(s):

The student should be able to:

1. Define and explain the basic processes of learning.
2. Understand classical conditioning, and how acquisition, extinction, spontaneous recovery, generalization, and discrimination occur.
3. Understand how classical conditioning works
4. Understand operant conditioning and how acquisition, shaping, extinction, generalization, and discrimination occur.
5. Define and describe the difference between positive reinforcement, negative reinforcement, and punishment.
6. Explain schedules of reinforcement and be able to identify different schedules from examples.
7. Understand observational learning.

Chapter 6: Learning Daily Lesson Plans

Day 1

Topics:

Learning
Observational learning
Operant conditioning
Classical conditioning

Procedure:

Begin with the power point or the optional class notes for Overhead transparencies. Students should begin working on vocabulary words. They should also finish 6.4 and 6.5 during the class hour.

Materials list:

6.1
6.2
6.3
6.4
6.5

Description:

Learning Preview
Learning Objectives
Learning Vocabulary words

Suggested Teaching Strategies:

This can be a fun unit. This is a great activity...

I did the salivation exercise using Pixie Stix and a school bell for the first time after reading about it here and it worked beautifully. It took very little time and made the point well. I think the classical conditioning lecture went much better because I did this as the introduction. You can condition the response in 10-15 trials spaced 1-1.5 seconds apart. Then ring the bell without Pixie Stix and have students rate the amount of increased salivation on a 0-4 scale. I repeated this for seven trials and later checked for spontaneous recovery.

(Note: give each student at least 2 pixie stixs, have them open them before you start and tell them to tap it into their mouths without getting the stick moist. If it gets moist then the powder won't come out).

You will be asked to tap a little Pixie Stix candy in your mouth EACH TIME YOU HEAR THE BELL. You must NOT put the candy in your mouth before you get the signal. You must wait for the bell!

Or student place lemonade powder on their tongue every time the name Pavlov is mentioned.

Chapter 6: Learning Daily Lesson Plans

After a number of trials, I will ring the bell but tell you not to use the Pixie Stix. You are rate the amount that you salivate on a 5-point scale where 0 = no increase in salivation and 4 = a big increase in salivation.

Write your ratings in the chart below.

Trial	Rating 0-4, where 0 = no increase in salivation and 4 = a big increase in salivation
1	_____
2	_____
3	_____
4	_____
5	_____
6	_____
7	_____

Video Support and Background

The Discovering Psychology Series with Dr. Phil Zimbardo
Learning

The Brain: Teaching Modules Second Edition
(17) Learning as a Synaptic Change (8:19)

The Mind: Teaching Modules Second Edition
(25) Human Language: Signed and Spoken (6:08)

Day 2

Chapter Objective(s):

The student should be able to:

1. Define and explain the basic processes of learning.
2. Understand classical conditioning, and how acquisition, extinction, spontaneous recovery, generalization, and discrimination occur.
3. Understand how classical conditioning works
4. Understand operant conditioning and how acquisition, shaping, extinction, generalization, and discrimination occur.
5. Define and describe the difference between positive reinforcement, negative reinforcement, and punishment.
6. Explain schedules of reinforcement and be able to identify different schedules from examples.
7. Understand observational learning.

Chapter 6: Learning Daily Lesson Plans

Topics:

Learning

Observational learning

Operant conditioning

Classical conditioning

Day 2 (Cont.)

Suggested Teaching Strategies:

Begin today by asking about the Pixie Stix! The students will moan and groan, that means they liked it!

Begin by asking them to come up with examples from their lives regarding classical conditioning and have them diagram the experiments as well.

Demonstrate classical conditioning by leading the class through a little visual imagery. You begin by having students close their eyes. You are at the beach with a friend. It's a warm day. You can feel the sun on your face and you can smell the salty air. You are thinking that this is a perfect way to relax. This is so much better than anything at home. What a wonderful vacation.

At this point turn on the very beginning of the movie, *Jaws*. You only need to play the first few minutes. Ask the students what was going on inside of them?

By consistently pairing the music with bloody shark attacks, the movie producers have successfully conditioned us to sense fear whenever we hear the music. Ask students to explain this situation in their own words. Then show them how to diagram *Jaws* using classical conditioning. After you have explained the *Jaws* example, students will find it easier to label each part of the classical conditioning

Day 3

Procedure:

Use the PowerPoint to discuss what operant conditioning is. Differentiate classical from operant conditioning. The students will need this lesson. Give some of the characteristics of operant conditioning

Content Background:

Here are some examples and the books from which they were taken.

FIXED RATIO

1. Factory worker paid on piece work (Bernstein, Roy, Srull, & Wickens, 1991; Bootzin, Bower, Crocker, & Hall, 1991)
2. Receiving a good grade for reading x number of chapters of the book (McConnell, 1989; Roediger, Capaldi, Paris, & Polivy, 1991).
3. Paying on commission (Gredler, 1992) or getting a bonus for every x number of items sold (Weiten, 1992).